

**The Township of Wall
Monmouth County
New Jersey**

NJDES Municipal Stormwater Regulation Program

Stormwater Pollution Prevention Plan

NJPDES General Permit # NJG0153214

Program Interest ID # 167179

**Wall Township
2700 Allaire Road
Wall, NJ 07719**

2019

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1.0 INTRODUCTION

In response to an estimate that up to 60% of our existing water pollution problems are attributable to stormwater (nonpoint) pollution, the United States Environmental Protection Agency published the Phase II Stormwater Rules in December of 1999, which implemented Section 402(p)(6) of the Federal Clean Water Act. The New Jersey Department of Environmental Protection (NJDEP) developed the Municipal Stormwater Regulation Program (MSRP) to address the pollutants entering our waters from storm drainage systems owned or operated by local, State, interstate or Federal government agencies, referred to as "municipal separate storm sewer systems" (MS4s).

In order to facilitate the implementation of the MSRP, the NJDEP adopted amendments to the New Jersey Pollutant Discharge Elimination System (NJPDES) Rules. These revised stormwater rules were signed into law on January 5, 2004.

The Municipal Stormwater Regulation Program regulates all 566 municipalities within the State of New Jersey. In addition, NJPDES permits are required for public complexes and highway systems. Under the program, municipalities are assigned to either Tier A or Tier B.

Under the newly implemented Stormwater Permitting Program, Wall Township is designated as a Tier A municipality. Tier A municipalities are generally located within the more densely populated regions of the state, near the coast, or other environmentally sensitive area.

2.0 BACKGROUND

2.1 WALL TOWNSHIP

The Township of Wall was established on March 7, 1851 and is a total of 32 square miles. According to the 2000 census, Wall Township's population is 26,265. Wall is located in the Monmouth Watershed Management Area. It is bordered by the shore towns of Belmar, Lake Como, Sea Girt, Spring Lake, Manasquan and Brielle to the east, Howell to the west, Brick Township to the south, and Neptune and Tinton Falls to the north.

The northeast portion of Wall borders the Shark River. Some areas along the Shark River are wetlands, and classified as environmentally sensitive areas. The Glendola Reservoir is identified as a critical environmentally sensitive area. Another significant area located in Wall is Allaire State Park. This 3,086 acre park includes a historic 19th century village, and miles of trails. The Manasquan River runs through the park and the river's floodplain provides habitat for many species of trees, wildflowers, plants, as well as birds and other wildlife. Wall Township is also bordered by the Manasquan River to the south, which includes the Manasquan Wildlife Management Area. This 754 acre area includes wetlands that are interconnected with the Manasquan River.

2.2 PERMIT APPLICATION

Under New Jersey's NJPDES Stormwater/UIC rules (N.J.A.C. 7:14A-25.4 and 25.8(b)) a general permit application packet (including a Request for Authorization (RFA) form) was mailed by the Department to all the affected parties. The deadline to apply was March 3, 2004. The permit is a (5) years permit which is automatically renewed. NJDEP will also charge an annual permit fee based upon population, for permit maintenance.

The permits address stormwater quality related issues relative to new and existing development and redevelopment by requiring the preparation of a stormwater program and implementation of specific permit requirements referred to as Statewide Basic Requirements (SBRs).

The effective date of permit authorization (EDPA) for the municipality's general stormwater permit is April 1, 2004. Implementation schedules will correspond with the EDPA for each of the Statewide Basic Requirements (SBRs) addressed in the Tier A General Stormwater Permit. This permit is presented in Attachment I.

The permit requires the completion of a Stormwater Pollution Prevention Plan (SPPP) twelve (12) months from the EDPA. The SPPP is a prescriptive plan that describes in detail the permittee's implementation of the SBRs in accordance with the specific permit requirements. Annually, the NJDEP will conduct compliance and enforcement audits at which time the SPPP will be reviewed for consistency with the permit requirements.

2.3 STORMWATER POLLUTION PREVENTION PLAN (SPPP)

The permit requires the completion of a Stormwater Pollution Prevention Plan (SPPP) twelve (12) months from the EDPA. The SPPP is a prescriptive plan that describes in detail the permittee's implementation of the SBRs in accordance with the specific permit requirements. Annually, the NJDEP will conduct compliance and enforcement audits at which time the SPPP will be reviewed for consistency with the permit requirements.

The SPPP will identify the person(s) responsible for implementing or coordinating the SPPP activities, which will be included in Appendix A. This plan will include an implementation

schedule consistent with SBRs, including interim milestones, as well as maintenance and inspection schedules where applicable. In instances of shared operations, including, but not limited to, street sweeping and catch basin cleaning requirements, written agreements will be attached. Maps and diagrams referenced in the SPPP are included where appropriate.

2.4 STATEWIDE BASIC REQUIREMENTS AND IMPLEMENTATION SCHEDULE

The following information describes in summary the SBRs detailed under the Tier A General Stormwater Permit as well as the corresponding schedule for the implementation of those requirements. A summarized version of the implementation schedule is presented in Table 1.0.

2.4.1 Post-Construction Stormwater Management in New Development and Redevelopment

The Post-Construction Stormwater Management SBR addresses compliance with the Watershed Management Rules (N.J.A.C. 7:8) for development and redevelopment projects that disturb one acre or more, including projects that are less than one acre that are part of a larger common plan of development or sale, that discharge into the municipality's small municipal separate storm sewer system (MS4), and requires compliance with the new design standards for storm drain inlets. These items must be addressed twelve (12) months from the EDPA.

In addition, this SBR also requires that the permittee ensures the long term operation and maintenance of the Best Management Practices (BMPs) installed in accordance with the requirements of N.J.A.C. 7:8 for stormwater management immediately upon the EDPA.

The following items, required under this SBR, are addressed in Appendix C:

- ❖ Adoption of Stormwater Management Plan
- ❖ Adoption of Stormwater Control Ordinance
- ❖ Compliance with Residential Site Improvement Standards
- ❖ Compliance with Storm Drain Inlets Design Standards
- ❖ Implementation of Best Management Practices (BMP)

2.4.2 Local Public Education

The Local Public Education SBR requires permittees to distribute a nonpoint source educational brochure, provided by the NJDEP, to all residents and business owners within the municipality starting 12 months from the EDPA. In addition, the brochure, and other optional educational material, must be made available at an annual event, also beginning 12 months from the EDPA. A copy of this brochure is presented in Attachment III. Additional education requirements in the form of the labeling of municipal storm drain inlets next to sidewalks, or within plazas, parking areas or maintenance yards, is required to be completed within 60 months of the EDPA, with 50% completed within 36 months of the EDPA.

The following items, required under this SBR, are outlined in Appendices D and E:

- ❖ Annual Mailing – NJDEP "Solutions to Stormwater Pollution" Brochure must be distributed annually to all residents and business within the municipality. The NJDEP brochure is presented in Attachment III.
- ❖ Annual Event – The municipality must hold an annual event at which the required mailing must be available. It is recommended that the municipality provide additional optional education materials to strengthen their local public education program.
- ❖ Storm Drain Labeling – Municipalities may want to consider using volunteer efforts to complete the storm drain labeling requirements of this program. The Storm Drain Labeling Guidelines for New Jersey are presented in Attachment V.

Optional educational materials may include the following, which can be found in Attachment IV:

- ❖ NJDEP "Pet Waste Pollutes Our Waters" Handout
- ❖ NJDEP "Clean Water Raingers Coloring Book"
- ❖ Rutgers Cooperative Extension Fact Sheets
 - Home Composting
 - Yard Trimmings Management Strategies
 - Using Leaf Compost
 - Minimizing Waste Disposal: Grass Clippings
 - Backyard Leaf Composting

2.4.3 Improper Waste Disposal

The Improper Waste Disposal SBR requires permittees to adopt and enforce ordinances controlling the improper disposal of waste material (i.e. waste automotive fluids, household chemicals, etc.), pet waste, litter, yard waste, and prohibiting of wildlife feeding 18 months from the EDPA. Municipalities should distribute the NJDEP pet waste information sheet, presented in Attachment IV, with pet licenses, as a mechanism for public outreach and awareness.

Within the same 18 month timeframe, permittees must also develop and enforce an illicit connection identification program, which includes the enforcement of an ordinance prohibiting unauthorized connections to the MS4. Dry weather flow inspections must be completed initially for each outfall and follow up investigations must be completed in the event of a complaint or identification of dry weather flow during routine maintenance.

The last of the requirements under this SBR includes the mapping of all MS4 outfalls owned or operated by the municipality on a tax map or equivalent drawing. This also includes the application of an alphanumeric identification number for each permitted outfall and the identification of the receiving water body. The regulations require the municipality to be divided into two sectors with the first sector mapped 36 months from the EDPA and the second 60 months from the EDPA. Illicit connection inspections described above, and outfall scouring inspections described below, should also be completed concurrent with outfall mapping.

The following items are required under this SBR:

- ❖ Adopting and Enforcing Ordinances – Referenced in Appendix J, the six ordinances outlined above must be adopted and enforced by October 1, 2005.
- ❖ Development of Illicit Connection Identification Program – Municipalities must develop, implement and enforce an illicit connection elimination program to detect and eliminate illicit connections into the municipality's small MS4. The program, described in Appendix G, must include the initial physical inspection of all municipally owned outfalls.
- ❖ Maintain Illicit Connection Records – Municipalities must record outfall inspections on the NJDEP Illicit Connection Inspection Report Form presented in Appendix G. The Closeout Investigation Form, also presented in Appendix G, is only to be submitted to the NJDEP once the appropriate amount of investigation has been completed. A summary of these inspections/investigations is required in Appendix H.
- ❖ Outfall Mapping – A copy of the Township's storm sewer system maps will be included in Appendix F.

2.4.4 Solids and Floatable Control

The following items are required under this SBR:

- ❖ Street Sweeping – Under the solid and floatable control SBR, municipalities are required to sweep all municipally owned and operated curbed streets with storm drains that have a posted speed limit of 35 miles per hour or less (excludes on/off ramps), located in predominantly commercialized areas, at least once per month. Exclusions from this requirement only occur if weather does not permit the completion of sweeping activities. These activities must commence twelve (12) months from the EDPA. This requirement is addressed in Appendix L.
- ❖ Storm Drain Inlet Retrofitting – Permittees must retrofit existing storm drain inlets, that are impacted during road repair or resurfacing projects, with inlets that comply with the new design standards and the Residential Site Improvement Standards for bicycle safe grates. These new designs must be included in any project that was designed or awarded subsequent to March 3, 2004. Certain flood prone areas can be exempted from this requirement with a Professional Engineers Certification. This requirement is addressed in Appendix K.
- ❖ Stormwater Facility Maintenance – In addition to the above, the municipality must also develop a maintenance program for all stormwater facilities operated by the municipality that includes the annual cleaning of all catch basins and ensures the proper function of stormwater systems. This requirement must commence 12 months from the EDPA. If the municipality is unable to comply with this schedule, both justification and an alternative schedule must be included in the SPPP. Documentation of inspections, cleaning and repairs must be kept as part of the SPPP. This requirement is addressed in Appendix M.
- ❖ Road Erosion Control Maintenance – The municipality must develop a Road Erosion Control Maintenance Program to identify and repair erosion along municipally owned roadways. The dates of all inspection and repairs must be documented in the plan. This must start 18 months from the EDPA. This requirement is addressed in Appendix L.
- ❖ Outfall Pipe Stream Scouring Remediation – An Outfall Pipe Stream Scouring Remediation Program must be developed by the municipality to detect, remediate, and maintain stream bank scouring in the vicinity of outfalls. The municipality must document all inspections, repairs, and must implement this within 18 months of the EDPA. This requirement is addressed in Appendix N.

2.4.5 Maintenance Yard Operations

The following items are required under this SBR:

- ❖ Source Material Inventory – The permittee must perform an inventory of all materials and machinery stored at maintenance facilities, or activities conducted that could be a source of pollutants in stormwater runoff from the site. A list of the source materials and BMPs being implemented to reduce pollutant runoff from these locations must be incorporated into the SPPP. This must be completed within 12 months of the EDPA. An inventory of source material has been completed and presented in Appendix P.

- ❖ De-icing Material Storage – Permittees are required to permanently cover all deicing material using a permanent building or other enclosure which contains an impervious floor. Regular maintenance of the structure and inspections must also be completed. Seasonal tarping (October 15 through April 30) can be used as an interim compliance method, but must be ceased 36 months from the EDPA. Clean sand may be stored outside and uncovered if a 50-foot set back from a water body or stormwater collection system is maintained. The municipality's de-icing material storage practices are outlined in Appendix O.
- ❖ Implementation of Standard Operating Procedures (SOPs) – Municipalities must develop and implement a Standard Operating Procedure (SOP) for vehicle fueling and bulk deliveries associated with fuel dispensing systems owned by the municipality. This includes requirements to prevent spills during fueling and bulk deliveries, and includes the protection of storm drain inlets to prevent the impact to surface water in the event a spill should occur. These requirements must be implemented 12 months from the EDPA.

Within 12 months of the EDPA, the permittee must develop and implement an SOP that addresses vehicle maintenance and repairs, and reduces their impact on stormwater quality. The SOP must include performance of these activities indoors when practical and on an impervious surface. Outdoor repairs must incorporate drip pans and rain shields for repairs that exceed one day. The SOP must include the inspection of all areas and vehicles.

Permittees must implement good housekeeping procedures in accordance with the permit requirements within 12 months of the EDPA. These requirements include proper labeling of all containers, maintenance, and covering. If indoor storage is not practical, containers may be stored outside, covered, and on spill platforms. Inspections for spills must be conducted regularly and cleanup must be conducted immediately upon identification.

SOPs to be implemented at all municipal maintenance yards, where applicable, are outlined in Appendix P.

2.4.6 Employee Training

The following item, required under this SBR, is outlined in Appendix Q:

- ❖ Municipalities must train all appropriate employees annually beginning 12 months from the EDPA. Employees must be trained on appropriate topics and trainings must be documented.

TABLE 1.0 – MSRP IMPLEMENTATION SCHEDULE

DATE OF COMPLETION	TASKS TO BE COMPLETED
April 1, 2005	<ul style="list-style-type: none"> • Implement Stormwater Pollution Prevention Plan (SPPP) • Adopt Stormwater Management Plan • Implement Fueling Operation SOP • Implement Vehicle Maintenance SOP • Implement Good Housekeeping SOP • Begin monthly street sweeping, where appropriate
October 1, 2005	<ul style="list-style-type: none"> • Adopt Pet Waste Ordinance • Adopt Litter Ordinance • Adopt Improper Waste Disposal Ordinance • Adopt Wildlife Feeding Ordinance • Adopt Containerized Yard Waste Ordinance • Adopt Illicit Connection Ordinance • Begin Illicit Connection Elimination Program • Begin Roadside Erosion Maintenance • Begin Outfall Pipe Stream Scouring Program
May 2, 2005	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year one
April 1, 2006	<ul style="list-style-type: none"> • Stormwater Control Ordinance Adopted • Educational Brochure Distributed and Documented • Annual Educational Event Completed and Documented • Employees Trained and Documented • Annual Catch Basin Complete
May 2, 2006	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year two
April 1, 2007	<ul style="list-style-type: none"> • 1st Sector Completed for Outfall Mapping • 1st Sector Completed for Catch Basin Labeling • Permanent Storage Structure for De-Icing Material
May 2, 2007	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year three
May 2, 2008	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year four
April 1, 2009	<ul style="list-style-type: none"> • Outfall Mapping complete • Inlet Labeling Complete
May 2, 2009	<ul style="list-style-type: none"> • Complete and Submit Annual Report and Certification (provided in Attachment II) for year five

Tier A Municipal Stormwater Regulation
Program

Stormwater Pollution Prevention Team Members

Number of team members may vary.

Completed by: Matthew J. Zahorsky, PE, CME
Title: Director of Engineering and Planning
Date: January 7, 2019
Municipality: Wall Township
County: Monmouth
NJPDES #: NJG0153214
PI ID #: 167179

Stormwater Program Coordinator: Matthew J. Zahorsky, PE, CME
Title: Director of Engineering and Planning
Office Phone #: 732-449-8444 x2247
Emergency Phone #: 732-449-4500

Public Notice Coordinator: Roberta Lang, RMC
Title: Township Clerk
Office Phone #: 732-449-8444 x2215
Emergency Phone #: 732-449-4500

Post-Construction Stormwater Management Coordinator: Matthew J. Zahorsky / Glenn Gerken
Title: Director of Engineering and Planning / Township Engineer
Office Phone #: 732-449-8444 x 2247
Emergency Phone #: 732-449-4500

Local Public Education Coordinator: Matthew J. Zahorsky, PE, CME
Title: Director of Engineering and Planning
Office Phone #: 732-449-8444 x2215
Emergency Phone #: 732-449-4500

Ordinance Coordinator: Roberta Lang, RMC / Sean Kean, Esq.
Title: Township Clerk / Township Attorney
Office Phone #: 732-449-8444 x2215 / 732-583-7474
Emergency Phone #: 732-449-4500

Public Works Coordinator: Joseph Lentini, CPWM
Title: Director of Public Works
Office Phone #: 732-449-2700
Emergency Phone #: 732-449-4500

Employee Training Coordinator: Joseph Lentini, CPWM
Title: Director of Public Works
Office Phone #: 732-449-2700
Emergency Phone #: 732-449-4500

Other: _____
Title: _____
Office Phone #: _____
Emergency Phone #: _____

SPPP Form 2 - Public Notice

Municipality
Information

Municipality: Wall Township

County: Monmouth County

NJPDES # : NJG0153214

PI ID #: 167179

Team Member/Title: Roberta Lang, RMC / Township Clerk

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: 3/28/05

Date of most recent update: 1/7/2019

Briefly outline the principal ways in which you comply with applicable State and local public notice requirements when providing for public participation in the development and implementation of your stormwater program.

For meetings where public notice is required under the Open Public Meetings Act ("Sunshine Law," N.J.S.A. 10:4-6 et seq.), Wall Township provides public notice in a manner that complies with the requirements of that Act.

In regard to the passage of ordinances, Wall Township provides public notice in a manner that complies with the requirements of N.J.S.A. 40:49-1 et seq.

For municipal actions (e.g., adoption of municipal stormwater management plan) subject to public notice requirements in the Municipal Land Use Law (N.J.S.A. 40:55D-1 et seq.), Wall Township complies with those requirements.

Public notices are typically advertised in The Coast Star and the Asbury Park Press.

SPPP Form 3 – New Development and Redevelopment Program

Municipality Information	Municipality: <u>Wall Township</u>	County: <u>Monmouth County</u>
	NJPDES #: <u>NJG0153214</u>	PI ID #: <u>167179</u>
	Team Member/Title: <u>Matthew J. Zahorsky, PE, CME, Director of Engineering and Planning</u>	
	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>	
	Date of Completion: <u>3/28/05</u>	Date of most recent update: <u>1/7/2019</u>

Describe in general terms your post-construction stormwater management in new development and redevelopment program (post-construction program), and how it complies with the Tier A Permit minimum standard. This description must address compliance with the Residential Site Improvement Standards for stormwater management; ensuring adequate long-term operation and maintenance of BMPs (including BMPs on property that you own or operate); design of storm drain inlets (including inlets that you install); and preparation, adoption, approval, and implementation of a municipal stormwater management plan and municipal stormwater control ordinance(s). Attach additional pages as necessary. Some additional specific information (mainly about that plan and ordinance(s)) will be provided in your annual reports.

Compliance with Residential Site Improvement Standards:

Wall Township is ensuring that all new residential development and redevelopment projects that are subject to Residential Site Improvement Standards for stormwater management (including the NJDEP Stormwater Management rules, N.J.A.C. 7:8, referenced in those standards) are in compliance with those standards. The Township Engineer ensures such compliance before issuing preliminary or final subdivision or site plan approvals under the Municipal Land Use Law.

Operation and Maintenance of Best Management Practices (BMPs):

Since the EDPA, Wall Township has not constructed any new development or redevelopment projects on Township property. If the Township decides to construct such a project, adequate long-term operation and maintenance of BMPs for that project will be ensured by requiring a project maintenance plan as described in the municipal stormwater control ordinance.

For any BMP that is installed in order to comply with the requirements of the post-construction program, Wall Township will ensure adequate long-term operation as well as preventative and corrective maintenance.

Storm Drain Inlet Design:

Any storm drain inlets installed will be required to comply with the design standard in Attachment C of the Township's General Stormwater Permit. Wall Township will ensure such operation and maintenance by complying with the maintenance requirements in the stormwater control ordinance. In addition, any storm drain inlets installed for such projects will comply with that ordinance's standard for such inlets.

Stormwater Management and Stormwater Control Ordinance:

The Municipal Stormwater Management Plan and Stormwater Control Ordinance were approved by the County review agency on February 4, 2010.

The ordinance, which will be administered by Wall Township's Engineering Department and consulting engineer, will control stormwater from non-residential development and redevelopment projects. Where it is necessary to implement the stormwater management plan, the approved ordinance will also control aspects of residential development projects that are not subject to the Residential Site Improvement Standards.

Wall Township will enforce, through the municipal stormwater control ordinance, compliance with the design standard in Attachment C of the permit to control passage of solid and floatable materials through storm drain inlets. The Township expects that for most projects, such compliance will be achieved by installation of the NJDOT bicycle safe grate and (if needed) a curb opening with a clear space no bigger than two (2) inches across the smallest diameter.

SPPP Form 4- Local Public Education Program

Municipality
Information

Municipality: Wall Township

County: Monmouth County

NJPDES #: NJG0153214

PI ID #: 167179

Team Member/Title: Matt Zahorsky, PE, CME, Director of Engineering and Planning

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: 3/28/05

Date of most recent update: 1/7/2019

Local Public Education Program

Describe your Local Public Education Program. Be specific on how you will distribute your educational information, and how you will conduct your annual event. Attach additional pages with the date(s) of your annual mailing and the date and location of your annual event.

The Township utilizes the following to fulfill the requirements of the local public education program:

- *Wall Township will maintain a stormwater related webpage on the municipal website and include a link to www.cleanwaternj.com.*
- *A display of educational materials is maintained at the municipal building.*
- *The Township will utilize NJDEP materials by posting signs at municipal athletic fields and Little League fields.*
- *The Township holds a Fourth of July Fair annually at which NJDEP brochures and other educational materials are available or displayed at the Wall Township Environmental Advisory Committee Booth.*
- *The Township of Wall has formed a Green Team made up of Professionals from Municipality and Resident Volunteers who are working maintain certification and continue to ensure the Township of Wall is a sustainable community.*
- *The Township of Wall has posted the Stormwater Ordinance, Stormwater Pollution Prevention Plan and the Municipal Stormwater Management Plan on the Township Website.*

In the event any of these options is not achievable during any given permit year, Wall Township will select another approved option in Attachment E of the Tier A Stormwater Permit to satisfy the ten (10) point requirement.

SPPP Form 5 – Storm Drain Inlet Labeling

Municipality
Information

Municipality: Wall Township

County: Monmouth County

NJPDES #: NJG0153214

PI ID #: 167179

Team Member/Title: Joseph Lentini, CPWM, Director of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: 3/28/05

Date of most recent update: 1/7/2019

Storm Drain Inlet Labeling

Describe your storm drain inlet labeling program, including your labeling schedule, the details of your long-term maintenance plan, and plans on coordinating with watershed groups or other volunteer organizations.

Storm Drain Inlet Labeling Program:

All storm drain inlets that are along municipal streets with sidewalks, and all storm drain inlets within plazas, parking areas or maintenance yards that are operated by Wall Township have been labeled.

Long-term Maintenance of Labels:

During the annual catch basin cleaning program, the Wall Township Department of Public Works will be checking these labels to ensure they are still visible. Labels that are not visible will be replaced immediately.

Description of Labels:

Stencils used for labeling will read "FLOWS TO WATERWAY", or a similar statement, for any area where the application of a plastic marker is not feasible.

SPPP Form 6 – MS4 Outfall Pipe Mapping

Municipality
Information

Municipality: Wall Township

County: Monmouth County

NJPDES # : NJG0153214

PI ID #: 167179

Team Member/Title: Matthew J. Zahorsky, PE, CME, Director of Engineering and Planning
Joseph Lentini, CPWM, Director of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: 3/28/05

Date of most recent update: 1/7/2019

Explain how you will prepare your map (include its type and scale, and the schedule for the mapping process). Who will prepare your map (e.g., municipal employees, a consultant, etc.)?

Outfall Mapping:

Outfall mapping was previously completed by Bay Pointe Engineering through a grant provided by the Sewage Infrastructure Improvement Act (SIIA). No alterations to the storm system have been made since the completion of these maps. These maps are located at the office of the Township Engineer:

Wall Township Municipal Building

2700 Allaire Road

Wall, NJ 07719

Alphanumeric identifiers have been assigned to each outfall. The Manasquan River and all other waterbodies receiving outfall pipe discharges will also remain identified on the map.

Updating Outfall Mapping:

The Township will ensure that existing outfall maps are updated as new development or redevelopment changes the current storm sewer system through the creation of additional outfalls.

Currently, the Township is working on a mapping program that will utilize GIS to map and track inspections of all existing outfalls.

SPPP Form 7 – Illicit Connection Elimination Program

Municipality
Information

Municipality: Wall Township

County: Monmouth County

NJPDES #: NJG0153214

PI ID #: 167179

Team Member/Title: Matthew J. Zahorsky, PE, CME, Director of Engineering and Planning
Joseph Lentini, CPWM, Director of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: 3/28/05

Date of most recent update: 1/7/2019

Describe your Illicit Connection Elimination Program, and explain how you plan on responding to complaints and/or reports of illicit connections (e.g., hotlines, etc.). Attach additional pages as necessary.

Initial Physical Inspection:

The initial physical inspection of all Township-owned outfall pipes was completed by the 2009 deadline. The NJDEP Illicit Connection Inspection Report Form was used to conduct these inspections, and each of these forms will be kept with our SPPP records.

Illicit Connection Elimination Program:

The Township will respond to complaints and reports of illicit connections, including those from operating entities of interconnected small MS4s, and continue to investigate dry weather flows discovered during routine inspections and maintenance of the Township's storm sewer system.

Reporting Illicit Connections:

Residents can report illicit connections to the Township by contacting the local police department at 732-449-4500 or the NJDEP Spill Hotline (1-877-WARNDEP).

If dry weather flow is encountered, the Illicit connection Inspection Report and Closeout Investigation Forms must be submitted to the NJDEP with the Annual Certification Report. Otherwise, the Illicit Connection Inspection Report Form should be kept with the SPPP for NJDEP review.

SPPP Form 8 – Illicit Connection Records

Municipality Information

Municipality: Wall Township County: Monmouth County
 NJPDES #: NJG0153214 PI ID #: 167179
 Team Member/Title: Matthew J. Zahorsky, PE, CME, Director of Engineering and Planning
Joseph Lentini, CPWM, Director of Public Works
 Effective Date of Permit Authorization (EDPA): April 1, 2004
 Date of Completion: 3/28/05 Date of most recent update: 1/7/2019

January 1, 2014 to December 31, 2014

Note: Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.

Total number of inspections performed this year? _____

Number of outfalls found to have a dry weather flow? _____

Number of outfalls found to have an illicit connection? _____

How many illicit connections were eliminated? _____

Of the illicit connections found, how many remain? _____

January 1, 2015 to December 31, 2015

Note: Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.

Total number of inspections performed this year? _____

Number of outfalls found to have a dry weather flow? _____

Number of outfalls found to have an illicit connection? _____

How many illicit connections were eliminated? _____

Of the illicit connections found, how many remain? _____

January 1, 2016 to December 31, 2016

Note: Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.

Total number of inspections performed this year? _____

Number of outfalls found to have a dry weather flow? _____

Number of outfalls found to have an illicit connection? _____

How many illicit connections were eliminated? _____

Of the illicit connections found, how many remain? _____

January 1, 2017 to December 31, 2017

Note: Attach a copy of each illicit connection report form for outfalls found to have a dry weather flow.

Total number of inspections performed this year? _____

Number of outfalls found to have a dry weather flow? _____

Number of outfalls found to have an illicit connection? _____

How many illicit connections were eliminated? _____

Of the illicit connections found, how many remain? _____

SPPP Form 9 – Yard Waste Ordinance/Collection Program

Municipality Information

Municipality: Wall Township County: Monmouth County
 NJPDES #: NJG0153214 PI ID #: 167179
 Team Member/Title: Joseph Lentini, CPWM, Director of Public Works
 Effective Date of Permit Authorization (EDPA): April 1, 2004
 Date of Completion: 3/28/05 Date of most recent update: 1/7/2019

Please describe your yard waste collection program. Be sure to include the collection schedule and how you will notify the residents and businesses of this schedule. Attach additional pages as necessary.

Yard Waste Collection:

Leaves are picked up November through December during the Fall season, and April 1 through May 15 through the spring season. In addition, brush is collected during May, June, September and October in conjunction with the bulk pickup schedule.

Yard Waste Ordinance:

Wall Township's Ordinance Number 32-2006, adopted November 21, 2006, prohibits yard waste from being placed at the curb or along the street more than seven (7) days prior to scheduled collections. The ordinance also prohibits the placing of yard waste closer than ten (10) feet from any storm sewer inlet along the street.

Currently, Article I Garbage and Refuse Collection [Adopted 11-8-1978 as Sec. 3-7 of the Revised General Ordinance] §191-3 H. Branches, hedge clippings and leaves states:

- (1) Tree branches and hedge clippings shall be cut to a maximum length of four feet and shall be placed curbside in a neat and orderly fashion in a pile not to exceed 3-5 cubic yards, or approximate size of 4x3x8. No viney material, prunings or leaves may be mixed with branches. Pickup will be between such dates as may be designated for such pickup. Branches and hedge clippings may also be collected and brought to a Township recycling center. [Amended 11-23-2010 by Ord. No. 23-2010]*
- (2) Leaves shall be loosely piled in a neat and orderly fashion, free of any other vegetative material such as vines, prunings or grass, and placed curbside for collection by Township vehicles. Leaves in bags will not be collected. Leaves may also be collected and brought to a Township recycling facility. Pickup will be between such dates as may be designated for such pickup.*
- (3) Grass. Grass shall be brought to the Township recycling center. Grass trimmings shall not be placed loose or in piles on the sidewalk, gutter or street.*
- (4) Sweeping, raking, blowing or otherwise placing yard waste that is not containerized at the curb or along the street is only allowed during the seven days prior to a scheduled and announced collection and shall not be placed closer than 10 feet from any storm drain inlet. [Added 11-21-2006 by Ord. No. 32-2006]*

SPPP Form 10 - Ordinances

Municipality
Information

Municipality: Wall Township County: Monmouth County
NJPDES # : NJG0153214 PI ID #: 167179
Team Member/Title: Roberta Lang, RMC, Township Clerk / Sean Kean, Esq., Township Attorney
Effective Date of Permit Authorization (EDPA): April 1, 2004
Date of Completion: 3/28/05 Date of most recent update: 1/7/2019

For each ordinance, give the date of adoption. If not adopted, explain the development status:

Pet Waste: 3/8/2006

Are information sheets regarding pet waste distributed with pet licenses? Y (X) N ()

Litter: 3/8/2006

Improper Waste Disposal: 3/8/2006

Wildlife Feeding: 3/8/2006

Yard Waste: 3/8/2006

Illicit Connections: 3/8/2006

Refuse Container/Dumpster: 2/9/2011

Private Storm Drain Inlet Retrofitting: 2/9/2011

How will these ordinances be enforced?

The Township's code enforcement officers and local police will enforce these ordinances. If someone is found to be in violation of an ordinance, they will be issue a written warning for first time offenses, and penalties will be issued for subsequent offenses.

SPPP Form 11 – Storm Drain Inlet Retrofitting

Municipality Information

Municipality: Wall Township County: Monmouth County
 NJPDES # : NJG0153214 PI ID #: 167179
 Team Member/Title: Matt J. Zahorsky, PE, CME, Director of Engineering and Planning
 Effective Date of Permit Authorization (EDPA): April 1, 2004
 Date of Completion: 3/28/05 Date of most recent update: 1/7/2019 -

What type of storm drain inlet design will generally be used for retrofitting?

For most projects, Wall Township will use the NJDOT bicycle safe grate style or equivalent and (if needed) a curb opening with a clear space no larger than two inches across the smallest dimension.

Repaving, repairing, reconstruction or alteration project name	Projected start date	Start date	Date of completion	# of storm drain inlets	# of storm drains w/ hydraulic exemptions
2017 Road Repaving		Oct '17	April '18	27	0

Are you claiming any alternative device exemptions or historic place exemptions for any of the above projects? Please explain:

Wall Township does not currently operate any alternative devices within the municipality. There is no plan to install any such devices for repaving, repairing, reconstruction or alteration projects in the future. Wall Township also does not plan on claiming any historic place exemptions.

SPPP Form 12 – Street Sweeping and Road Erosion Control Maintenance

Municipality Information

Municipality: Wall Township

County: Monmouth County

NJPDES # : NJG0153214

PI ID #: 167179

Team Member/Title: Joseph Lentini, CPWM, Director of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: 3/28/05

Date of most recent update: 1/7/2019

Street Sweeping

Please describe the street sweeping schedule that you will maintain.

(NOTE: Attach a street sweeping log containing the following information: date and area swept, # of miles swept and the total amount of materials collected.)

Street Sweeping Schedule:

The Township is scheduled to sweep Industrial Way and Landmark Place monthly. These roads meet the criteria for required monthly sweeping.

For all other municipal roads and lots, the Township will continue to follow its current street sweeping schedule. If a predominantly commercial area is created on a municipal road, that road will be incorporated into Wall's street sweeping program.

Road Erosion Control Maintenance

Describe your Road Erosion Control Maintenance Program, including inspection schedules. A list of all sites of roadside erosion and the repair technique(s) you will be using for each site should be attached to this form.

(NOTE: Attach a road erosion control maintenance log containing the following information: location, repairs, date)

Road Erosion Control Maintenance Program:

Wall Township is not required to implement a road erosion control program in accordance with the Tier A Stormwater Permit renewal. The Township will repair road erosion accordingly, as they are made aware of any problem areas throughout the town.

SPPP Form 13 – Stormwater Facility Maintenance

Municipality
Information

Municipality: Wall Township

County: Monmouth County

NJPDES # : NJG0153214

PI ID #: 167179

Team Member/Title: Joseph Lentini, CPWM, Director of Public Works

Effective Date of Permit Authorization (EDPA): April 1, 2004

Date of Completion: 3/28/05

Date of most recent update: 1/7/2019

Please describe your annual catch basin cleaning program and schedule. Attach a map/diagram or additional pages as necessary.

Catch Basin Cleaning Program:

Wall Township will implement an annual catch basin cleaning program to maintain catch basin function and efficiency. The Township will inspect at least 1,000 catch basins each year. If, at the time of inspection, no sediment, trash or debris is observed in the catch basin, then that catch basin will not be cleaned. At the time of cleaning, the catch basins will also be inspected for proper function. Maintenance will be scheduled for those catch basins that are in disrepair.

The Township currently operated 1,481 catch basins.

Please describe your stormwater facility maintenance program for cleaning and maintenance of all stormwater facilities operated by the municipality. Attach additional pages as necessary.

(NOTE: Attach a maintenance log containing information on any repairs/maintenance performed on stormwater facilities to ensure their proper function and operation.)

Stormwater Facility Maintenance Program:

The Township operates the following stormwater facilities: catch basins, storm drains, Orchard Crest detention basin, and Grant Street detention basin.

The Township will also be acquiring ownership of new basins constructed within residential areas of the Township. Newly acquired basins will be incorporated into the Stormwater Facility Maintenance Program.

These stormwater facilities will be inspected annually to ensure they are functioning properly. In high risk areas, preventative maintenance will be performed on all stormwater facilities to ensure that they do not begin to fail.

A copy of the logs presented in the Stormwater Management Facilities Maintenance Manual (Demonstration Study) completed by Ocean County have been included, and may be used to document inspections/repairs.

SPPP Form 14 - Outfall Pipe Stream Scouring Remediation

Municipality Information

Municipality: Wall Township County: Monmouth County
NJPDES #: NJG0153214 PI ID #: 167179
Team Member/Title: Joseph Lentini, CPWM, Director of Public Works
Effective Date of Permit Authorization (EDPA): April 1, 2004
Date of Completion: 3/28/05 Date of most recent update: 1/7/2019

Describe your stormwater outfall pipe scouring detection, remediation and maintenance program to detect and control active, localized stream and stream bank scouring. Attach additional pages as necessary.

(NOTE: Attach a prioritized list of sites observed to have outfall pipe stream and stream bank scouring, date of anticipated repair, method of repair and date of completion.)

Outfall Pipe Stream Scouring Detection, Remediation and Maintenance Program:

Wall Township will check all outfall pipes for signs of scouring when completing the ongoing investigations detailed in the illicit connection inspection program. Any site identified to have scouring will be placed on a prioritized list and repairs will be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey. In addition, repairs that do not need NJDEP permits may be completed first.

Those outfalls pipes in which scouring had been detected and addressed in the past will be inspected annually thereafter to ensure the associated stabilization projects were successful. Once it is determined that the scouring repairs have adequately mitigated any subsequent scouring, those outfalls will again be inspected following the illicit connection inspection program schedule.

SPPP Form 15 – De-icing Material Storage

Municipality
Information

Municipality: Wall Township County: Monmouth County
NJPDES #: NJG0153214 PI ID #: 167179
Team Member/Title: Joseph Lentini, CPWM, Director of Public Works
Effective Date of Permit Authorization (EDPA): April 1, 2004
Date of Completion: 3/28/05 Date of most recent update: 1/7/2019

De-icing Material Storage

Describe how you currently store your municipality's de-icing materials, and describe your inspection schedule for the storage area. If your current storage practices do not meet the de-icing material storage SBR describe your construction schedule and your seasonal tarping interim measures. If you plan on sharing a storage structure, please include its location, as well as a complete list of all concerned public entities. If you store sand outdoors, describe how it meets the minimum standard.

De-icing Material Storage:

De-icing material for Wall Township is currently stored within a permanent structure at the Wall Township DPW Facility on Tilton's Corner Road.

The following standard operating procedures for good housekeeping of salt and de-icing material handling will be implemented to ensure minimal environmental impact:

- *Prevent and/or minimize the spillage of salt and de-icing materials during loading and unloading activities.*
- *At the completion of loading and unloading activities, spilled salt and de-icing materials shall be removed using dry cleaning methods and either reused or properly discarded.*
- *Sweeping by hand or mechanical means of storage and loading/unloading areas shall be done on a regular basis. More frequent sweeping is required following loading/unloading activities. Sweeping shall also be conducted immediately following, as practicable, loading/unloading activities.*
- *Tracking of materials from storage and loading/unloading areas shall be minimized.*
- *Minimize the distance salt and de-icing materials are transported during loading/unloading activities.*

A de-icing material storage inspection checklist has been included.

SPPP Form 16 – Standard Operating Procedures

Municipality Information

Municipality: Wall Township County: Monmouth County
 NJPDES #: NJG0153214 PI ID #: 167179
 Team Member/Title: Joseph Lentini, CPWM, Director of Public Works
 Effective Date of Permit Authorization (EDPA): April 1, 2004
 Date of Completion: 3/28/05 Date of most recent update: 1/7/2019

BMP	Date SOP went into effect	Describe your inspection schedule
Fueling Operations (including the required practices listed in Attachment D of the permit)	<i>April 1, 2005</i>	<i>All fueling locations in municipal yards will be inspected once a month.</i>
Vehicle Maintenance (including the required practices listed in Attachment D of the permit)	<i>April 1, 2005</i>	<i>Monthly inspections of vehicle maintenance will be performed in order to ensure that the SOP is being followed.</i>
Good Housekeeping Practices (including the required practices listed in Attachment D of the permit) Attach inventory list required by Attachment D of the permit.	<i>April 1, 2005</i>	<i>Monthly inspections of all maintenance yards will be conducted.</i>

SPPP Form 17 – Employee Training

Municipality Information	Municipality: <u>Wall Township</u> County: <u>Monmouth County</u>
	NJPDES #: <u>NJG0153214</u> PI ID #: <u>167179</u>
	Team Member/Title: <u>Joseph Lentini, CPWM, Director of Public Works</u>
	Effective Date of Permit Authorization (EDPA): <u>April 1, 2004</u>
	Date of Completion: <u>3/28/05</u> Date of most recent update: <u>1/7/2019</u>

Describe your employee training program. For each required topic, list the employees that will receive training on that topic, and the date the training will be held. Attach additional pages as necessary.

Course Topic	Who will attend:
<i>Municipal Ordinances</i>	<i>Code enforcement and local police department, public works employees</i>
<i>Waste Disposal Education</i>	<i>Public works employees</i>
<i>Illicit Connection Elimination and Outfall Pipe Mapping</i>	
<i>Street Sweeping</i>	
<i>Stormwater Facility Maintenance</i>	
<i>Road Erosion Control and Outfall Pipe Stream Scouring Remediation</i>	
<i>Maintenance Yard Operations</i>	
<i>Construction Activity/Post-Construction Stormwater Management in New Development and Redevelopment</i>	

- *Illicit Connection Elimination and Outfall Pipe Mapping field training will include procedures to properly conduct illicit connection detections, investigations and eliminations.*
- *Maintenance Yard Operations field training will include SOPs for fueling, vehicle and equipment maintenance, general good housekeeping, and good housekeeping for de-icing materials storage.*

Dates for the above training programs will be recorded and kept with the Township's SPPP.

PART I
NARRATIVE REQUIREMENTS
Tier A Municipal Stormwater General Permit
Final - NJPDES Permit Renewal - Existing Permittee

A. Authorization Under this Permit

1. Permit Area

- a. This permit applies to all areas of the State of New Jersey.

2. Eligibility

- a. This permit may authorize all new and existing stormwater discharges to surface water and groundwater from small municipal separate storm sewer systems (MS4s) owned or operated by municipalities assigned to Tier A under N.J.A.C. 7:14A-25.3(a)1 (Tier A Municipalities), except as provided in A.5 below.
- b. On a case-by-case basis, the Department may use this permit to authorize new and existing stormwater discharges to surface water and groundwater from small MS4s (or portions of small MS4s) owned or operated by Tier B Municipalities. As used in this permit, the term "Tier A Municipality" includes Tier B Municipalities that seek or obtain authorization pursuant to this provision of this permit.
- c. After the Effective Date of Permit Authorization (EDPA), the permit authorizes the following new and existing non-stormwater discharges from small MS4s owned or operated by Tier A Municipalities:
 - i. Water line flushing and discharges from potable water sources
 - ii. Uncontaminated ground water (e.g., infiltration, crawl space or basement sump pumps, foundation or footing drains, rising ground waters)
 - iii. Air conditioning condensate (excluding contact and non-contact cooling water)
 - iv. Irrigation water (including landscape and lawn watering runoff)
 - v. Flows from springs, riparian habitats and wetlands, water reservoir discharges and diverted stream flows
 - vi. Residential car washing water, and residential swimming pool discharges
 - vii. Sidewalk, driveway and street wash water
 - viii. Flows from fire fighting activities including the washing of fire fighting vehicles

- ix. Flows from rinsing of the following equipment with clean water:
 - Beach maintenance equipment immediately following their use for their intended purposes; and
 - Equipment used in the application of salt and de-icing materials immediately following salt and de-icing material applications. Prior to rinsing with clean water, all residual salt and de-icing materials must be removed from equipment and vehicles to the maximum extent practicable using dry cleaning methods (e.g., shoveling and sweeping). - Recovered materials are to be returned to storage for reuse or properly discarded.
 - Rinsing of equipment in the above situations is limited to exterior, undercarriage, and exposed parts and does not apply to engines or other enclosed machinery.
- d. If any of the discharges listed in 2.c above are identified by the municipality as a significant contributor of pollutants to or from the MS4, the Tier A Municipality must address the discharge as an illicit connection or as an improper disposal of waste as specified in Part I, Section F of this permit

3. Authorization

- a. In order to obtain authorization under this permit (except for automatic renewal of authorization under A.4 below) a complete Request for Authorization (RFA) shall be submitted in accordance with the requirements of this permit. Upon review of the RFA, the Department may, in accordance with N.J.A.C. 7:14A-6.13, either:
 - i. Issue notification of authorization under this permit, in which case, authorization is deemed effective the first day of the following month of the date of the notification of authorization;
 - ii. Deny authorization under this permit and require submittal of an application for an individual permit; or
 - iii. Deny authorization under this permit and require submittal of an RFA for another general permit.
- b. For discharges from a small MS4 authorized by this permit, the Tier A Municipality is exempt from N.J.A.C. 7:14A-6.2(a)2. This exemption means that the discharge of any pollutant not specifically regulated in the NJPDES permit or listed and quantified in the NJPDES application or RFA shall not constitute a violation of the permit.
- c. Authorization under this permit shall cease to be effective under N.J.A.C. 7:14A-6.13(f), (h), (j) and (o), where applicable.

4. Automatic Renewal of Authorization

- a. Authorization under this permit will be automatically renewed when this general permit is reissued as provided by N.J.A.C. 7:14A-6.13(d)9 and 25.4(a)3 so long as the discharge authorized under the general permit continues to be eligible. The Department shall issue a notice of renewed authorization to the Tier A Municipality.
- b. If the Tier A Municipality is aware of any information in the most recently submitted RFA that is no longer true, accurate, and/or complete, the Tier A Municipality shall provide the correct information to the Department within 90 days of the effective renewal authorization notice.

5. Stormwater Discharges Not Authorized

- a. This permit does not authorize "stormwater discharge associated with industrial activity" as defined in N.J.A.C. 7:14A-1.2. Types of facilities that a Tier A Municipality may operate and that are considered to be engaging in "industrial activity" include but are not limited to certain landfills and recycling facilities, certain transportation facilities (including certain local passenger transit and air transportation facilities), certain facilities handling domestic sewage or sewage sludge, steam electric power generating facilities, and construction activity that disturbs five acres or more (see N.J.A.C. 7:14A-1.2 for the full definition of "stormwater discharge associated with industrial activity"). Any municipality that operates an industrial facility with such a discharge must submit a separate request for authorization (RFA) or individual permit application for that discharge. An RFA submitted for the Tier A Municipal Stormwater General Permit does not qualify as an RFA for such a discharge.
 - i. Deadlines to apply for a NJPDES permit for "stormwater discharge associated with industrial activity" are set forth in N.J.A.C. 7:14A-24.4(a)1. If such a discharge is from a facility (other than an airport, powerplant, or uncontrolled sanitary landfill) that is owned or operated by a municipality with a population of less than 100,000, the municipality shall submit the RFA or individual permit application by March 3, 2004. If such a discharge is from any other industrial facility, N.J.A.C. 7:14A-24.4(a)1 specifies earlier deadlines to apply.
- b. This permit does not authorize "stormwater discharge associated with small construction activity" as defined in N.J.A.C. 7:14A-1.2. In general, this is the discharge to surface water of stormwater from construction activity that disturbs at least one but less than five acres (see N.J.A.C. 7:14A-1.2 for the full definition). Any municipality that operates a construction site with such a discharge must submit a separate RFA or individual permit application for that discharge. An RFA submitted for the Tier A Municipal Stormwater General Permit does not qualify as an RFA for such a discharge.
- c. This permit does not authorize any stormwater discharge that is authorized under another NJPDES permit. A municipality does not have to implement measures contained in this NJPDES permit for stormwater discharges at facilities owned or operated by that municipality that are regulated under a separate NJPDES stormwater permit authorizing those discharges.
- d. This permit does not authorize stormwater discharges from projects or activities that conflict with an adopted areawide or Statewide WQM plan.

B. Requests for Authorization Requirements

1. Deadline for Requesting Authorization for an Existing Discharge

- a. An RFA for the existing discharges from the small MS4 owned or operated by a Tier A Municipality must have been submitted to the Department on or before March 3, 2004, except as provided below.
 - i. If a municipality receives notice from the Department that it has been reassigned from Tier B to Tier A, or that a special designation is made under N.J.A.C. 7:14A-25.2(a)4, the deadline to submit an RFA is 180 days after the receipt of that notice, unless the Department approves a later date.
 - ii. The Department may, in its discretion, accept an RFA submitted after the foregoing deadline; however, the municipality may still be held liable for violating the deadline to apply in accordance with N.J.A.C. 7:14A-25.4 and for discharging pollutants without a valid NJPDES permit in accordance with N.J.A.C. 7:14A-2.1(d).

2. Deadline for Requesting Authorization for a New Discharge

- a. An RFA for discharges from a new small MS4 owned or operated by a Tier A Municipality must be submitted to the Department at least ninety (90) days prior to the operation of the new MS4 system.
 - i. A Tier A Municipality that already has authorization to discharge from a small MS4 under the Tier A Municipal Stormwater Permit does not need to submit an additional RFA for the expansion of an existing small MS4.
 - ii. A new small MS4 is a small MS4 that did not exist on March 3, 2004 and results in a new discharge to surface or ground waters of the State.

3. Requesting Authorization

- a. A separate RFA shall be submitted by each Tier A Municipality applying for authorization under this permit.
- b. A single RFA is required for the entire stormwater discharge from the small MS4 owned or operated by and located within a single municipality. Multiple RFAs are not required for multiple municipal operations (e.g., municipally owned and operated maintenance facilities, garages, and/or offices).

4. Contents of the Request for Authorization

- a. A completed RFA shall include all of the following information regarding the Tier A Municipality and shall be completed using the Department's RFA form:
 - i. The name of the municipality that operates the small MS4, county it is located in, and the address of the main municipal office (e.g., city hall, town hall, or municipal building).
 - ii. The name and mailing address of the Municipal Stormwater Program Coordinator who will submit any reports or certifications required by the permit and to whom the Department shall send all correspondence concerning the permit.
 - iii. A certification acknowledging the best management practices and measurable goals specified in the permit.
 - iv. Additional information may be required by the Department to be included as part of the RFA if the Department determines that such additional information (including other data, reports, specifications, plans, permits, or other information) is reasonably necessary to determine whether to authorize the discharge under this permit.

5. Where to Submit

- a. A completed and signed RFA shall be submitted to the Department at the address specified on the Department's RFA form.

C. Definitions

1. The following definitions apply to this permit.

- a. "Catch Basin" means a cistern, vault, chamber or well that is usually built along a street as part of the storm sewer system to capture sediment, debris, and pollutants.
- b. "EDPA" or "Effective Date of Permit Authorization" means the date the permittee's authorization to discharge under the Tier A Municipal Stormwater General Permit becomes effective. This date may be found on the permittee's Authorization to Discharge.

- c. "Existing Permittee" means a municipality that was authorized to discharge under the Tier A Municipal Stormwater General Permit on February 28, 2009.
- d. "Illicit connection" means any physical or non-physical connection that discharges the following to a municipal separate storm sewer system, unless that discharge is authorized under a NJPDES permit other than the NJPDES permit for discharges from that system (non-physical connections may include, but are not limited to, leaks, flows, or overflows into the municipal separate storm sewer system):
 - i. Domestic sewage;
 - ii. Non-contact cooling water, process wastewater, or other industrial waste (other than stormwater); or
 - iii. Any category of non-stormwater discharges that the Tier A Municipality identifies as a source or significant contributor of pollutants pursuant to 40 C.F.R. 122.34(b)(3)(iii).
- e. "MS4" means a municipal separate storm sewer system.
- f. "Municipality" means a "municipality" as defined in the Municipal Land Use Law at N.J.S.A. 40:55D-5, that is, any city, borough, town, township, or village.
- g. "Municipal separate storm sewer" means a conveyance or system of conveyances (including roads with drainage systems, municipal streets, catch basins, curbs, gutters, ditches, manmade channels, or storm drains):
 - i. Owned or operated by the United States, an interstate agency, a State, city, town, borough, county, parish, district, association, or other public body (created by or pursuant to State law) having jurisdiction over disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under State law such as a sewer district, flood control district or drainage district, or similar entity, or an Indian tribe organization, or a designated and approved management agency under section 208 of the CWA that discharges to surface water or groundwater;
 - ii. Designed and used for collecting or conveying stormwater;
 - iii. Which is not a combined sewer;
 - iv. Which is not part of a POTW; and
 - v. Which is not either of the following:
 - A separate storm sewer(s) that is at an industrial facility, and that collects or conveys stormwater discharges associated with industrial activity that occurs at that facility; or
 - A separate storm sewer(s) that is at a construction site, and that collects or conveys stormwater discharges associated with small construction activity that occurs at that site.
- h. "New Permittee" means a municipality that obtains its first authorization to discharge under the Tier A Municipal Stormwater General Permit after February 28, 2009.
- i. "Original EDPA" means the initial date of the permittee's authorization to discharge under the Tier A (or, for purposes of F.4. below, Tier A or Tier B) Municipal Stormwater General Permit issued on February 2, 2004.

- j. "Permanent structure" means a permanent building or permanent structure that is anchored to a permanent foundation with an impermeable floor, and that is completely roofed and walled (a door is recommended, but not required). A fabric frame structure is a permanent structure if it meets the following specifications:
 - i. structure must be designed to withstand at least 110 mph winds;
 - ii. structure must be covered by a PVC or other similar fire rated material with a minimum twenty (20) year warranty;
 - iii. concrete blocks, jersey barriers or other similar material must be placed around the interior of the structure to protect the side walls during loading and unloading de-icing materials;
 - iv. the design must prevent stormwater run-on and run through;
 - v. structure must be erected on an impermeable slab;
 - vi. structure cannot be open sided; and
 - vii. must have a roll up door or other means of sealing the access way from wind driven rainfall.
- k. "Small municipal separate storm sewer system" or "small MS4" means all municipal separate storm sewers (other than "large" or "medium" municipal separate storm sewer systems as defined in N.J.A.C. 7:14A-1.2) that are:
 - i. Owned or operated by municipalities described under N.J.A.C. 7:14A-25.1(b);
 - ii. Owned or operated by county, State, interstate, or Federal agencies, and located at public complexes as described under N.J.A.C. 7:14A-25.2(a)2; or
 - iii. Owned or operated by county, State, interstate, or Federal agencies, and located at highways and other thoroughfares as described under N.J.A.C. 7:14A-25.2(a)3; or
 - iv. Owned or operated by county, State, interstate, Federal, or other agencies, and receive special designation under N.J.A.C. 7:14A-25.2(a)4.
- l. "Solid and floatable materials" means sediment, debris, trash, and other floating, suspended, or settleable solids.
- m. "Stormwater" means water resulting from precipitation (including rain and snow) that runs off the land's surface, is transmitted to the subsurface, is captured by separate storm sewers or other sewerage or drainage facilities, or is conveyed by snow removal equipment.
- n. "Stormwater facility" includes, but is not limited to: catch basins, detention basins, filter strips, riparian buffers, infiltration trenches, sand filters, constructed wetlands, wet basins, bioretention systems, low flow bypasses, and stormwater conveyances.
- o. "Yard waste" means loose leaves and grass clippings.

D. Special Conditions

1. Sharing of Responsibilities

- a. A Tier A Municipality may rely on another governmental, private, or nonprofit entity (for example, a watershed association) to satisfy the municipality's NJPDES permit obligations to implement one or more control measures (or components (s) thereof) pursuant to N.J.A.C. 7:14A-25.7(a) if:

- i. The other entity, in fact, implements the measure(s), or component(s) thereof;
- ii. The particular measure(s), or component(s) thereof, is at least as stringent as the corresponding NJPDES permit requirement;
- iii. The other entity agrees in writing (or is required by law) to implement the measure(s), or component(s) thereof, on the Tier A Municipality's behalf. The municipality is responsible for compliance with this permit if the other entity fails to implement the measure(s), or component(s) thereof. In the annual reports the municipality must submit under Part I, Section H.3, the municipality shall specify that it is relying on another entity to satisfy some of the Tier A Municipality's NJPDES permit obligations.
- iv. If the municipality is relying on another entity regulated under the NJPDES permit program to satisfy all of that Tier A Municipality's NJPDES permit obligations, including that municipality's obligation to file these annual reports, the municipality shall notify the Department of this reliance in writing, and shall also note this reliance in the municipality's SPPP.

E. Stormwater Program and Stormwater Pollution Prevention Plan

1. Stormwater Program

- a. Tier A Municipalities are required to develop, implement, and enforce a stormwater program. This program shall be designed to reduce the discharge of pollutants from the municipality's small MS4 to the maximum extent practicable, to protect water quality, and to satisfy the appropriate water quality requirements of the Federal Act and the State Act by including the Statewide Basic Requirements (SBRs) set forth in Part I, Section F and any Additional Measures (AMs) required under Part I, Section G below. At the municipality's discretion, the stormwater program may also include Optional Measures (OMs) also in accordance with Part I, Section G below.

2. Stormwater Pollution Prevention Plan (SPPP)

- a. Tier A Municipalities have prepared and implemented a written Stormwater Pollution Prevention Plan (SPPP) that describes the Tier A Municipality's stormwater program and serves as the mechanism for the implementation of the Statewide Basic Requirements. The SPPP must address stormwater quality issues related to new development, redevelopment and existing development. The SPPP shall include, at a minimum, all of the information and items identified in Attachment A.
 - i. Tier A Municipalities shall revise their SPPP on or before June 1, 2009 to incorporate additional Statewide Basic Requirements, best management practices and other changes required by the renewal of the Tier A Permit.
- b. The SPPP shall be signed, dated and retained by the Municipal Stormwater Program Coordinator.
- c. For any projects or activities which the municipality contracts out to private contractors after the EDPA, the awarded contract must contain conditions that the contractor must conduct such projects or activities in such a manner that is in compliance with the municipality's SPPP and this permit's conditions. The municipality is responsible for any violations of this permit resulting from a contractor's noncompliance.
- d. SPPPs may be amended so long as they continue to meet the requirements of this permit. Any amended SPPPs shall be signed, dated, implemented, retained, and otherwise treated in the same manner as the original SPPP. The Tier A Municipality shall retain each previous SPPP for a period of at least five years from the date of that previous SPPP. This period may be extended by written request of the Department at any time.

F. Statewide Basic Requirements (SBRs)

1. **Stormwater quality issues related to new development, redevelopment and existing development are to be addressed through the implementation of the following Statewide Basic Requirements (SBRs). The permit specifies the BMPs that will be implemented for those SBRs. These SBRs and related BMPs are to be detailed in the municipality's SPPP.**
 - a. Additional information is provided and each of the SBRs and related BMPs are described in more detail in the Department's Tier A Municipal Stormwater Permit Guidance Document.
2. **Public Notice**
 - a. Minimum Standard - Tier A Municipalities shall comply with applicable State and local public notice requirements when providing for public participation in the development and implementation of the Tier A Municipality's stormwater program.
 - b. Measurable Goal - Tier A Municipalities shall certify annually that all applicable State and local public notice requirements were followed.
 - c. Implementation - On March 1, 2009 and thereafter.
3. **Post-Construction Stormwater Management in New Development and Redevelopment**
 - a. Minimum Standard - To prevent or minimize water quality impacts, the Tier A Municipality shall implement, and enforce a program to address stormwater runoff from new development and redevelopment projects (including projects operated by the municipality itself) that disturb one acre or more, including projects less than one acre that are part of a larger common plan of development or sale, that discharge into the municipality's small MS4. The municipality shall in its post-construction program:
 - i. Adopt and reexamine a municipal stormwater management plan (or adopt amendments to an existing municipal stormwater management plan) in accordance with N.J.A.C. 7:8-4.
 - ii. Adopt and implement a municipal stormwater control ordinance or ordinances in accordance with N.J.A.C. 7:8-4. The ordinance(s) will control stormwater from non-residential development and redevelopment projects.
 - iii. Ensure that any residential development and redevelopment projects that are subject to the Residential Site Improvement Standards for stormwater management (N.J.A.C. 5:21-7) comply with those standards (including any exception, waiver, or special area standard that was approved under N.J.A.C. 5:21-3).
 - iv. Where necessary to implement the municipal stormwater management plan, the municipal stormwater control ordinance(s) will also:
 - Control aspects of residential development and redevelopment projects that are not pre-empted by the Residential Site Improvement Standards; and
 - Set forth special area standards approved by the Site Improvement Advisory Board for residential development or redevelopment projects under N.J.A.C. 5:21-3.5.
 - v. Ensure adequate long-term operation and maintenance of BMPs.
 - vi. Enforce, through the stormwater control ordinance(s) or a separate ordinance, compliance with standards set forth in Attachment C of the permit to control passage of solid and floatable materials through storm drain inlets.

- vii. This post-construction program shall also require compliance with the applicable design and performance standards established under N.J.A.C. 7:8 for major development, unless:
 - Those standards do not apply because of a variance or exemption granted under N.J.A.C. 7:8; or
 - Alternative standards are applicable under an areawide or Statewide Water Quality Management Plan adopted in accordance with N.J.A.C. 7:15.
- b. Measurable Goal - Tier A Municipalities shall certify annually that that they have developed, implemented, and are actively enforcing a program to address stormwater runoff from new development and redevelopment projects that discharge into the Tier A Municipality's small MS4 in accordance with the minimum standard.
- c. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall:
 - i. Enforce stormwater control ordinance(s), prepared in accordance with N.J.A.C. 7:8-4, when approved by the county review agency (and, where N.J.A.C. 7:50-3 is applicable, certified by the Pinelands Commission) or shall enforce stormwater control ordinance(s) when conditionally approved by the county review agency upon adoption by the municipality of the amendments specified by the county review agency (and, where N.J.A.C. 7:50-3 is applicable, certified by the Pinelands Commission).
 - ii. Ensure that any residential new development and redevelopment projects that are subject to the Residential Site Improvement Standards for stormwater management (N.J.A.C. 5:21-7) comply with those standards (including any exception, waiver, or special area standard that was approved under N.J.A.C. 5:21-3).
 - iii. Ensure adequate long-term operation and maintenance of BMPs on property owned or operated by the municipality.
 - iv. Ensure adequate long-term operation and maintenance of BMPs on property not owned or operated by the municipality
 - v. Enforce, through the stormwater control ordinance(s) or a separate ordinance compliance with the standards set forth in Attachment C of the permit to control passage of solid and floatable materials through storm drain inlets for storm drain inlets not installed by the Tier A Municipality.
 - vi. Comply with the standards set forth in Attachment C of the permit to control passage of solid and floatable materials through storm drain inlets for storm drain inlets the municipality installs within the Tier A Municipality's small MS4.

4. Local Public Education

- a. Local Public Education Program - Tier A Municipalities shall implement a Local Public Education Program that focuses on providing the public with information on the impact of stormwater discharges to surface and ground waters of the State and steps that the public can take to reduce pollutants in stormwater runoff. Appropriate information to be covered during these educational activities shall include, but is not limited to, local stormwater related municipal ordinances [Pet Waste Ordinance, Litter Ordinance, Improper Disposal of Waste Ordinance, Wildlife Feeding Ordinance, Illicit Connection Ordinance, Refuse Container / Dumpster Ordinance, Private Storm Drain Inlet Retrofitting, and Fertilizer Management Ordinance (if applicable)]; proper application, storage and disposal of fertilizer and pesticides; home composting and yard waste recycling; use of native or well-adapted vegetation; local stream and/or shoreline restoration activities; watershed education; and general nonpoint source education.

- i. Minimum Standard - Tier A Municipalities shall annually conduct educational activities that total a minimum of 10 points. Each approved activity is listed and has been assigned a point value in Attachment E of the permit.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that they have accumulated the number of points required to meet the Local Public Education Program minimum standard. Exact dates (e.g., month, day, year) and details of each educational activity (e.g., photos of the mural) shall be reported to the Department in the Annual Report.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall develop and begin implementing the Local Public Education Program minimum standard.
- b. Storm Drain Inlet Labeling and Maintenance
- i. Minimum Standard - Tier A Municipalities shall label all storm drain inlets along municipal streets with sidewalks, and all storm drain inlets within plazas, parking areas, or maintenance yards that are operated by the municipality, and maintain the legibility of those labels.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that a storm drain inlet labeling program has been developed and is being implemented.
 - iii. Implementation - Within 60 months from the original EDPA and thereafter, Tier A Municipalities shall ensure, for the storm drains identified in the minimum standard, that all storm drain inlets have been labeled and that the labels are being maintained.

5. Improper Disposal of Waste

- a. Pet Waste Ordinance
- i. Minimum Standard - Tier A Municipalities shall have adopted and shall enforce an ordinance that requires pet owners or their keepers to immediately and properly dispose of their pet's solid waste deposited on any property, public or private, not owned or possessed by that person. Information on the Pet Waste Ordinance and the benefits of proper disposal of pet solid waste shall be distributed with pet licenses.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Pet Waste Ordinance minimum standard.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall implement the Pet Waste Ordinance minimum standard.
- b. Litter Ordinance
- i. Minimum Standard - Tier A Municipalities shall have adopted and shall enforce a litter ordinance or enforce the existing State litter statute (N.J.S.A 13:1E-99.3).
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Litter Ordinance minimum standard.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall implement the Litter Ordinance minimum standard.
- c. Improper Disposal of Waste Ordinance
- i. Minimum Standard - Tier A Municipalities shall have adopted and shall enforce an ordinance prohibiting the improper spilling, dumping, or disposal of materials other than stormwater into the small MS4 (excluding those authorized in Part I, Section A.2.c).

- ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Improper Waste Disposal Ordinance minimum standard.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall implement the Improper Disposal of Waste Ordinance minimum standard.
- d. Wildlife Feeding Ordinance
- i. Minimum Standard - Tier A Municipalities shall have adopted and shall enforce an ordinance that prohibits the feeding in any public park or on any other property owned or operated by the Tier A Municipality of any wildlife (excluding confined animals, for example, wildlife confined in zoos, parks, or rehabilitation centers or unconfined wildlife at environmental education centers, or feral cats as part of an approved Trap-Neuter-Release (TNR) program).
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Wildlife Feeding Ordinance minimum standard.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall implement the Wildlife Feeding Ordinance minimum standard.
- e. Yard Waste Ordinance / Collection Program
- i. Minimum Standard - Tier A Municipalities shall have adopted and shall enforce an ordinance that prohibits placing non-containerized yard wastes in the cartway of the street or shall have developed and implemented a yard waste collection and disposal program. A yard waste collection program shall include the adoption and enforcement of an ordinance prohibiting the placing of yard waste closer than 10 feet from any storm sewer inlet along the street, unless they are bagged or otherwise containerized. The frequency of pickups shall be determined at the discretion of the Tier A Municipality but must be part of a set yard waste collection schedule which is noticed to all municipal residents and businesses. Any area, which the municipality determines to have no yard waste, will be exempt from the collections.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Yard Waste minimum standard. Tier A Municipalities that have chosen to implement the yard waste collection program must include the collection schedule dates in the annual report.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall implement the Yard Waste Ordinance / Collection Program minimum standard.
- f. Refuse Container / Dumpster Ordinance
- i. Minimum Standard - Tier A Municipalities shall adopt and enforce an ordinance requiring dumpsters and other refuse containers that are outdoors or exposed to stormwater to be covered at all times and which prohibits the spilling, dumping, leaking, or otherwise discharge of liquids, semi-liquids or solids from the containers [excluding permitted temporary demolition containers, refuse containers at industrial facilities authorized to discharge stormwater under a valid NJPDES permit, litter receptacles, individual homeowner trash and recycling containers, and containers that hold large bulky items (e.g., furniture, bound carpet and padding) only].
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Refuse Container Ordinance minimum standard.
 - iii. Implementation - Tier A Municipalities shall have adopted and begin enforcing the Refuse Container / Dumpster Ordinance minimum standard on or before September 1, 2010.
- g. Fertilizer Management Ordinance

- i. Minimum Standard - Tier A Municipalities identified in the adopted Non-Tidal Passaic River Basin Addressing Phosphorus Impairments TMDL shall adopt and enforce a fertilizer management ordinance, consistent with the model ordinance provided by the Department's Division of Watershed Management. (The list of municipalities required to adopt the ordinance is found in the adopted Non-Tidal Passaic River Basin Addressing Phosphorus Impairments TMDL and in Attachment F of this permit).
 - ii. Measurable Goal - Tier A Municipalities, identified in the adopted Non-Tidal Passaic River Basin Addressing Phosphorus Impairments TMDL and Attachment F of this permit, shall certify annually that they have met the Fertilizer Management Ordinance minimum standard.
 - iii. Implementation - Tier A Municipalities, identified in the adopted Non-Tidal Passaic River Basin Addressing Phosphorus Impairments TMDL and Attachment F of this permit, shall have fully implemented the Fertilizer Management Ordinance minimum standard on or before September 1, 2009.
- h. Private Storm Drain Inlet Retrofitting Ordinance
- i. Minimum Standard - Tier A Municipalities shall adopt and enforce an ordinance requiring the retrofitting of existing storm drain inlets to meet the standard in Attachment C of the permit which are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction, resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of hot bitumen), or alterations of facilities on property not owned or operated by the municipality (except individual single family homes).
 - ii. Measureable Goal - Tier A Municipalities shall certify annually that they have met the Private Storm Drain Inlet Retrofitting Ordinance minimum standard.
 - iii. Implementation - Tier A Municipalities shall have adopted and begun enforcing the Private Storm Drain Inlet Retrofitting Ordinance minimum standard by September 1, 2010.

6. Illicit Connection Elimination and MS4 Outfall Pipe Mapping

a. Minimum Standard

- i. Storm Sewer Outfall Pipe Mapping - Tier A Municipalities shall complete and maintain an outfall pipe map showing the location of the end of all MS4 outfall pipes owned and operated by the Tier A Municipality which discharge to a surface water body (e.g., a lake, ocean, or stream including an intermittent stream).
- ii. Ordinance Prohibiting Illicit Connections - Each Tier A Municipality shall have adopted and shall enforce through appropriate enforcement procedures and actions an ordinance prohibiting illicit connections to the Tier A Municipality's small MS4.
- iii. Illicit Connection Elimination Program - Tier A Municipalities must complete an initial physical inspection of all its outfall pipes and maintain an ongoing program to detect and eliminate illicit connections in accordance with the procedures found in Attachment B of the permit. The ongoing program will respond to complaints and reports of illicit connections, including those from operating entities of interconnected small MS4s, and continue to investigate dry weather flows discovered during routine inspections and maintenance of the small MS4.

b. Measurable Goal

- i. Storm Sewer Outfall Pipe Mapping - Tier A Municipalities shall certify annually that an outfall pipe map has been completed in accordance with permit conditions, report the number of outfall pipes mapped within the reporting year, and the total number of outfall pipes mapped to date.

- ii. Tier A Municipalities shall certify in the annual report that an ordinance prohibiting illicit connections is in place and is being actively enforced.
 - iii. Tier A Municipalities shall certify annually that an illicit connection elimination program has been developed in accordance with permit conditions to detect and eliminate illicit connections into the Tier A Municipalities' small MS4. Annual certifications shall also include the number of outfalls physically inspected, the number of outfalls found to have dry weather flow, the number of illicit connections found and the number of illicit connections eliminated. Copies of inspection reports shall be submitted with the annual certification for those outfalls found to have dry weather flow.
- c. Implementation
- i. Storm Sewer Outfall Pipe Mapping - 60 months from the original EDPA, Tier A Municipalities shall have mapped the location of, and performed an initial physical inspection of, all outfall pipes subject to the minimum standard.
 - ii. Ordinance Prohibiting Illicit Connections - On March 1, 2009 and thereafter, Tier A Municipalities shall have an ordinance prohibiting illicit connections to the Tier A Municipality's small MS4.
 - iii. Illicit Connection Elimination Program - 60 months from the original EDPA and thereafter, Tier A Municipalities shall continue to implement a program to detect and eliminate illicit connections into the Tier A Municipality's small MS4.

7. Solids and Floatable Controls

- a. Monthly Sweeping of Certain Streets in Predominantly Commercial Areas
- i. Minimum Standard - Tier A Municipalities shall sweep, at a minimum of once per month (weather and street surface conditions permitting) all streets (including roads or highways) that meet all of the following criteria:
 - the street is owned or operated by the municipality;
 - the street is curbed and has storm drains;
 - the street has a posted speed limit of 35 mph or less;
 - the street is not an entrance or exit ramp; and
 - the street is in a predominantly commercial area.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Street Sweeping minimum standard. Tier A Municipalities must maintain records including the date and areas swept, number of miles of streets swept and the total amount of materials collected. Information shall be reported to the Department in the annual report and certification.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall implement a street sweeping program that meets the minimum standard above.
- b. Storm Drain Inlet Retrofitting
- i. Minimum Standard - Retrofitting of existing storm drain inlets to meet the standard contained in Attachment C of the permit is required when such inlets are owned or operated by the Tier A Municipality and are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction, resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of hot bitumen), or alterations of facilities owned or operated by the Tier A Municipality.
For exemptions to this standard, refer to "Exemptions" in Attachment C.

- ii. Measurable Goal - Tier A Municipalities shall certify annually that such storm drain inlets have been retrofitted to meet the minimum standard contained in Attachment C, unless otherwise exempted. Tier A Municipalities must maintain records including the number and location of storm drain inlets retrofitted and number and location of storm drain inlets exempted. Information shall be reported to the Department in the annual report and certification.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall retrofit all such storm drain inlets in accordance with the Storm Drain Inlet Retrofitting minimum standard.
- c. Stormwater Facility Maintenance
 - i. Minimum Standard - Tier A Municipalities shall continue to implement a stormwater facility maintenance program for cleaning and maintenance of all municipally owned and operated stormwater facilities. Stormwater facilities include, but are not limited to: catch basins, detention basins, filter strips, riparian buffers, infiltration trenches, sand filters, constructed wetlands, wet basins, bioretention systems, low flow bypasses, and stormwater conveyances. The stormwater facility maintenance must be performed as required to ensure the proper function and operation of the stormwater facility.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that all municipally owned and operated stormwater facilities are properly functioning in accordance with the minimum standard. If stormwater facilities were found not to be functioning properly and repairs were not made, a schedule for such repairs shall be included in the annual report and certification. Tier A Municipalities shall also maintain records including the date(s) of inspections, maintenance, and description of repairs that were performed. This information shall be included with the annual report and certification.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall continue to implement a stormwater facility maintenance program in accordance with the minimum standard.
- d. Catch Basin Inspection and Cleaning
 - i. Minimum Standard - Tier A Municipalities shall inspect all municipally owned and operated catch basins for accumulated sediment, trash, and debris; and clean those basins to remove sediment, trash, or debris (if any observed during inspection). Tier A Municipalities with:
 - less than 5,000 municipally owned and operated catch basins shall annually inspect and (to the extent noted above) clean at least 1,000 catch basins, or as many catch basins as the municipality owns and operates.
 - 5,000 or more municipally owned and operated catch basins shall inspect and (to the extent noted above) clean all catch basins by February 28, 2014.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that all municipally owned and operated catch basins have been inspected and cleaned, as necessary. Tier A Municipalities shall maintain records including the number of municipally owned and operated catch basins within the municipality, the number of catch basins inspected, the number of catch basins cleaned, and the amount of materials collected during catch basin cleaning activities. This information shall be reported in the annual report and certification.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall inspect and clean all catch basins in accordance with the Catch Basin Inspection and Cleaning minimum standard.
- e. Outfall Pipe Stream Scouring Remediation

- i. Minimum Standard - Tier A Municipalities shall maintain a stormwater outfall pipe scouring detection, remediation and maintenance program to detect and control localized stream and stream bank scouring in the vicinity of outfall pipes operated by the municipality. This program shall identify all areas where localized stream and bank scouring occurs as a result of stormwater discharges from the Tier A Municipality's MS4. These areas shall then be prioritized and repairs shall be scheduled and completed. Repairs shall be made in accordance with the Standards for Soil Erosion and Sediment Control in New Jersey at N.J.A.C. 2:90-1 (e.g., Conduit Outlet Protection 12-1).
- ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the Outfall Pipe Stream Scouring Remediation minimum standard. In addition, the Tier A Municipality shall list the location of outfall scouring identified, the dates control measures are to begin, and the dates any control measures were completed.
- iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall continue to implement an outfall pipe stream scouring detection, remediation and maintenance program.

8. Maintenance Yard Operations (including maintenance activities at Ancillary Operations)

- a. De-icing Material Storage
 - i. Minimum Standard - Tier A Municipalities shall store salt, and other de-icing materials in a permanent structure. Tier A Municipalities shall perform regular maintenance and inspections of both the permanent structure and the surrounding area (see Good Housekeeping in Appendix D). Sand may be stored outside and uncovered if a 50-foot setback is maintained from storm sewer inlets, ditches or other stormwater conveyance channels, and surface water bodies.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that they have met the De-icing Material Storage minimum standard.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall store salt, and other de-icing materials in accordance with the De-icing Material Storage minimum standard.
- b. Equipment and Vehicle Washing
 - i. Minimum Standard - Tier A Municipalities shall manage any equipment and vehicle washing activities so that there are no unpermitted discharges of wash wastewater to the surface or ground waters of the State.
Tier A Municipalities shall maintain a record of where and when equipment and vehicle washing occurs to document proper management of wash water discharge.
 - ii. Measurable Goal - Tier A Municipalities shall certify annually that there is no unpermitted discharge from vehicle and equipment washing activities and describe the BMP implemented at each of the locations where vehicle and equipment washing activities occur.
 - iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall manage any equipment and vehicle washing activities so that there are no unpermitted discharges of wash wastewater to the surface or ground waters of the State.
- c. Standard Operating Procedures

- i. Minimum Standard - Tier A Municipalities shall implement standard operating procedures, which include the required practices listed in Attachment D, for each of the following activities:
 - Vehicle fueling and receiving of bulk fuel deliveries;
 - Vehicle maintenance and repair activities; and
 - Good housekeeping practices for all materials or machinery listed in the Inventory Requirements for Municipal Maintenance Yard Operations prepared in accordance with Attachment D.
- ii. Measurable Goal - Tier A Municipalities must certify annually that there are standard operating procedures in place for vehicle fueling, vehicle maintenance, and good housekeeping practices.
- iii. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall implement the required standard operating procedures.

9. Employee Training

- a. Minimum Standard - Tier A Municipalities shall conduct annual employee training to educate all municipal employees on those stormwater topics which are applicable to their job and title. At a minimum, annual employee training will include the following topics:
 - i. Waste Disposal Education - Training shall include how to respond to inquiries regarding proper waste disposal.
 - ii. Municipal Ordinances - Training shall include an overview of the Pet Waste Ordinance, Litter Ordinance, Illicit Connection Ordinance, Improper Waste Disposal Ordinance, Wildlife Feeding Ordinance, Refuse Container Ordinance, Yard Waste Ordinance (if applicable), Fertilizer Management Ordinance (if applicable), and the Private Storm Drain Inlet Retrofitting Ordinance, their requirements, enforcement policy, and hazards associated with improper waste disposal.
 - iii. Yard Waste Collection Program (if applicable) - Training shall include frequency of yard waste pickups and schedule, policy for when yard waste can be placed curbside, and alternatives such as composting and recycling.
 - iv. Illicit Connection Elimination and Outfall Pipe Mapping - Training shall include information regarding the hazards associated with illicit connections and details of the program including investigation techniques, physical observations, field sampling, and mapping procedures.
 - v. Monthly Sweeping of Certain Streets in Predominantly Commercial Areas - Training shall include sweeping schedules and record keeping requirements.
 - vi. Stormwater Facility Maintenance - Training shall include catch basin cleaning schedules and record keeping requirements.
 - vii. Outfall Pipe Stream Scouring Remediation - Training shall include identifying outfall pipe scouring and repairs.
 - viii. Maintenance Yard Operations (including Ancillary Operations) - Training shall include de-icing material storage, fueling, vehicle maintenance, equipment/vehicle washing and good housekeeping SOPs.
 - ix. Construction Activity / Post-Construction Stormwater Management in New Development and Redevelopment - Training shall include information regarding the requirement to obtain a NJPDES construction activity stormwater permit (see Part I, Section A.5.a and A.5.b of this permit) and requirements for Post-Construction Stormwater Management in New Development and Redevelopment (See Part I, Section F.3 of this permit) for the permittee's own construction activities and projects that disturb one acre or more.

- b. Measurable Goal - Tier A Municipalities must certify annually that employee training has been conducted and include the date(s) of the annual employee training(s) in the annual report and certification.
- c. Implementation - On March 1, 2009 and thereafter, Tier A Municipalities shall conduct an annual employee training program in accordance with the minimum standard.

10. Construction Site Stormwater Runoff Control

- a. Pursuant to N.J.A.C. 7:14A-25.6(b)2 and 25.7(b), the Department is responsible for developing, implementing, and enforcing a NJPDES permit program to reduce pollutants in stormwater runoff to small MS4s from construction activities. The Tier A Municipality is not required to include this SBR in its stormwater program or discuss this SBR in its SPPP.

G. Additional Measures and Optional Measures

1. Additional Measures

- a. Additional Measures (AMs) are non-numeric or numeric effluent limitations that are expressly required to be included in the stormwater program by an adopted areawide or Statewide Water Quality Management Plan (WQM plan). AMs may modify or be in addition to SBRs. AMs may be required by a TMDL approved or established by USEPA, a regional stormwater management plan, or other elements of adopted areawide or Statewide WQM plans.
- b. The Department will provide written notice of the adoption of an AM to each Tier A Municipality whose stormwater program will be affected, and will list each adopted AM in the permit by making a minor modification to the permit. The AMs, other than numeric effluent limitations, will specify the BMPs that must be implemented and the measurable goals for each BMP. The AMs will also specify time periods for implementation.

2. Optional Measures

- a. At the Tier A Municipality's discretion, the stormwater program may also include Optional Measures (OMs), which are BMPs that are not implemented for SBRs or AMs but that prevent or reduce the pollution of the waters of the State.

H. Deadlines and Certifications

1. Stormwater Pollution Prevention Plan

- a. On or before June 1, 2009, the Tier A Municipality shall revise their SPPP to incorporate changes required by the renewal of the Tier A Permit.
 - i. The SPPP shall include, at a minimum, all of the information and items identified in Attachment A. The SPPP shall be signed, dated and retained by the Tier A Municipality.

2. Statewide Basic Requirements

- a. Each SBR contained in Part I, Section F of the permit has a specific implementation schedule. Each SBR shall be implemented in accordance with that schedule. Tier A Municipalities shall certify in the Annual Report and Certification the status of the implementation of each SBR and the date implementation was completed, as appropriate.

- i. The Department may grant a six-month extension to the deadlines contained in an implementation schedule for any of the SBRs if the Tier A Municipality submits a written request for such extension, at least 30 days prior to the deadline, establishing to the Department's satisfaction that the Federal, State and local permits and approvals necessary for the construction of best management practices could not with due diligence be obtained within the time period set forth in Section F above. The written request shall be submitted to:

NJDEP
Division of Water Quality
Bureau of Nonpoint Pollution Control
Municipal Stormwater Regulation Program
P.O. Box 029
Trenton, NJ 08625-0029

3. Annual Report and Certification

- a. Tier A Municipalities shall complete an Annual Report (on a form provided by the Department) summarizing the status of compliance with this permit including measurable goals and the status of the implementation of each SBR contained in Part I, Section F of the permit. This report shall include a certification that the municipality is in compliance with its stormwater program, SPPP and this permit, except for any incidents of noncompliance. Any incidents of noncompliance with permit conditions shall be identified in the Annual Report and Certification. A copy of each Annual Report and Certification shall be kept at a central location and shall be made available to the Department for inspection.
 - i. If there are incidents of noncompliance, the report shall identify the steps being taken to remedy the noncompliance and to prevent such incidents from recurring.
 - ii. The Annual Report and Certification shall be signed and dated by the Tier A Municipality, and shall be maintained for a period of at least five years. This period may be extended by written request of the Department at any time.
- b. The Annual Report and Certification shall be submitted to the Department pursuant to the following submittal schedule:
 - i. Submit an Annual Report and Certification: on or before May 2nd annually.
 - ii. The Annual Report and Certification shall include information for activities and projects conducted by the municipality between January 1 and December 31 of each reporting year.

I. Standard Conditions

1. General Conditions Incorporated by Reference.

- a. The following general conditions are incorporated by reference. The Tier A Municipality is required to comply with the regulations, which were in effect as of March 1, 2009.
 - i. General Permits N.J.A.C. 7:14A-6.13
 - ii. Penalties for Violations N.J.A.C. 7:14-8.1 et seq.
 - iii. Incorporation by Reference N.J.A.C. 7:14A-2.3
 - iv. Toxic Pollutants N.J.A.C. 7:14A-6.2(a)4i
 - v. Duty to Comply N.J.A.C. 7:14A-6.2(a)1 & 4

- vi. Duty to Mitigate N.J.A.C. 7:14A-6.2(a)5 & 11
 - vii. Inspection and Entry N.J.A.C. 7:14A-2.11(e)
 - viii. Enforcement Action N.J.A.C. 7:14A-2.9
 - ix. Duty to Reapply N.J.A.C. 7:14A-4.2(e)3
 - x. Signatory Requirements for Applications and Reports N.J.A.C. 7:14A-4.9
 - xi. Effect of Permit/Other Laws N.J.A.C. 7:14A-6.2(a)6 & 7 & 2.9(c)
 - xii. Severability N.J.A.C. 7:14A-2.2
 - xiii. Administrative Continuation of Permits N.J.A.C. 7:14A-2.8
 - xiv. Permit Actions N.J.A.C. 7:14A-2.7(c)
 - xv. Reopener Clause N.J.A.C. 7:14A-6.2(a)10, 16.4(b) & 25.7(b)
 - xvi. Permit Duration and Renewal N.J.A.C. 7:14A-2.7(a) & (b)
 - xvii. Consolidation of Permit Process N.J.A.C. 7:14A-15.5
 - xviii. Confidentiality N.J.A.C. 7:14A-18.2 & 2.11(g)
 - xix. Fee Schedule N.J.A.C. 7:14A-3.1
 - xx. UIC Corrective Action N.J.A.C. 7:14A-8.4
 - xxi. Additional Conditions Applicable to UIC Permits N.J.A.C. 7:14A-8.9
 - xxii. UIC Operating Criteria N.J.A.C. 7:14A-8.16
- b. Operation and Maintenance
- i. Need to Halt or Reduce not a Defense N.J.A.C. 7:14A-2.9(b)
 - ii. Proper Operation and Maintenance N.J.A.C. 7:14A-6.12
- c. Monitoring and Records
- i. Monitoring N.J.A.C. 7:14A-6.5
 - ii. Recordkeeping N.J.A.C. 7:14A-6.6
 - iii. Signatory Requirements for Monitoring Reports N.J.A.C. 7:14A-6.9
- d. Reporting Requirements
- i. Planned Changes N.J.A.C. 7:14A-6.7
 - ii. Reporting of Monitoring Results N.J.A.C. 7:14A-6.8
 - iii. Noncompliance Reporting N.J.A.C. 7:14A-6.10 & 6.8(h)

- iv. Hotline/Two Hour & Twenty-four Hour Reporting N.J.A.C. 7:14A-6.10(c) & (d)
 - v. Written Reporting N.J.A.C. 7:14A-6.10(e) &(f) & 6.8(h)
 - vi. Duty to Provide Information N.J.A.C. 7:14A-2.11, 6.2(a)14 & 18.1
 - vii. Compliance Schedules N.J.A.C. 7:14A-6.4
 - viii. Transfer N.J.A.C. 7:14A-6.2(a)8 & 16.2
- e. Copies of the NJPDES rules may be purchased by contacting Lexis Nexis - Customer Service at (800) 223-1940, or go to the Lexis Nexis bookstore on the internet at www.lexisnexis.com/bookstore.

J. Additional Conditions

1. Agency and Public Review

- a. The Tier A Municipality shall make the SPPP available upon request to an authorized representative of the Department and to the owner of and operating entity for any municipal separate storm sewer system that receives discharges from the Tier A Municipality's small MS4.
- b. Upon review by an authorized representative, the Department may notify the Tier A Municipality at any time that the SPPP does not meet one or more of the minimum requirements. Within 30 days after receiving such notification (unless otherwise specified by the Department), the SPPP shall be amended to adequately address all deficiencies, and written certification of such amendments shall be submitted to the Department.
- c. Tier A Municipalities shall make records required by this permit, including its SPPP, available to the public at reasonable times during regular business hours (see N.J.A.C. 7:14A-18 for confidentiality provisions).

2. Other Laws

- a. In accordance with N.J.A.C. 7:14A-6.2(a)7, this permit does not authorize any infringement of State or local law or regulations, including, but not limited to the Pinelands rules (N.J.A.C. 7:50), N.J.A.C. 7:1E (Department rules entitled "Discharges of Petroleum and other Hazardous Substances"), the New Jersey Register of Historic Places Rules (N.J.A.C. 7:4), and all other Department rules. No discharge of hazardous substances (as defined in N.J.A.C. 7:1E-1.6) resulting from an onsite spill shall be deemed to be "pursuant to and in compliance with [this] permit" within the meaning of the Spill Compensation and Control Act at N.J.S.A. 58:10-23.11c.

3. Operations and Maintenance Manual

- a. In accordance with N.J.A.C. 7:14A-6.12(c), for a discharge authorized by this permit, the Tier A Municipality is exempt from the requirement to prepare an operations and maintenance manual.

Attachment A
Contents of the Stormwater Pollution Prevention Plan

A. SPPP Team

1. The Stormwater Pollution Prevention Plan (SPPP) shall identify the person or persons responsible for implementing or coordinating the SPPP activities (including at the Tier A Municipality's discretion, OMs).

B. Description of Required Best Management Practices

1. The SPPP shall identify and discuss each Statewide Basic Requirement (SBR) and best management practice (BMP) required by the Tier A Municipal Stormwater General Permit.

2. The SPPP shall identify and discuss each Additional Measure (AM), if any, required by the Tier A Municipal Stormwater General Permit.

3. The SPPP shall identify and discuss any Optional Measures (OMs) the Tier A Municipality chooses to include in its stormwater program.

4. For each SBR, AM, or OM included in the Tier A Municipality's stormwater program, the SPPP shall:

- a. Describe the method of implementation;
- b. Include detailed record keeping, as appropriate or as required;
- c. Include an implementation schedule consistent with permit requirements, including interim milestones;
- d. Include any special diagrams required by the permit (i.e., Storm Drain Inlet Labeling and Illicit Connection Elimination and MS4 Outfall Pipe Mapping);
- e. Sharing responsibilities (If the Tier A Municipality wants to share responsibilities for implementing one or more control measures (other than OMs) with one or more other entities pursuant to N.J.A.C. 7:14A-25.7(a), the SPPP must describe which measure(s) the Tier A Municipality will implement, and identify the entity(ies) that will implement the other measure(s));
- f. Include maintenance schedules, as appropriate; and
- g. Include inspection schedules, as appropriate.

5. Identifying Areas Served by Combined Sewer

a. Tier A Municipalities that want to exclude any "combined sewer area" from the stormwater program must include a map showing the boundaries of the combined sewer area. A "combined sewer area" is an area that is excluded because all stormwater from that area (and operated by the municipality) is discharged to combined (or sanitary) sewer systems.

Attachment B

Procedures for Detecting, Investigating, and Eliminating Illicit Connections

Detection

An illicit connection for the purposes of this permit, is any physical or non-physical connection that discharges domestic sewage, non-contact cooling water, process wastewater, or other industrial waste (other than stormwater) to the Tier A Municipality's small MS4, unless that discharge is authorized under a NJPDES permit other than this Tier A Municipal Stormwater General Permit (non-physical connections may include, but are not limited to, leaks, flows, or overflows into the municipal separate storm sewer system). An illicit connection is also any category of non-stormwater discharges that a Tier A Municipality identifies as a source or significant contributor of pollutants pursuant to 40 C.F.R. 122.34(b)(3)(iii).

MS4 outfall pipes, for the most part, should not be discharging during substantial dry periods (72 hours after a rain event). Such flow is frequently referred to as "dry weather flow", which may be the result of an illicit connection. All dry weather flows are generally non-stormwater discharges, however not all dry weather flows are illicit connections. Some non-stormwater flows result from the improper disposal of waste (e.g., radiator flushing, engine degreasing, improper disposal of oil) and some may be the result of allowable discharges such as residential car washing, irrigation runoff, permitted (NJPDES) discharges and natural waters (e.g., spring water and groundwater infiltration). By using the Department's Illicit Connection Inspection Report form and making physical observations, a Tier A Municipality will compile information that will help determine if the dry weather flow is an illicit connection and the most likely source of the illicit connection. After making these physical observations, additional chemical field testing will enable a Tier A Municipality to further narrow the potential source(s) of the illicit connection.

The first physical observation is to observe if there is a dry weather flow. Some dry weather discharges are continuously flowing and some are intermittent. Observations will allow the Tier A Municipality to establish with reasonable certainty if there is an intermittent flow. If there are indications of intermittent flows (staining, odors, deterioration of outfall structure) follow-up investigations are required (see Investigation section). An estimate of the flow rate of the discharge shall also be noted (flow rate can be estimated by various methods, including timing how long it takes to fill a container of a known size). Additional physical observations and measurements shall be made for odor, color, turbidity, floatable matter, temperature, deposits and stains, vegetation and algal growth and condition of outfall structure (see Illicit Connection Inspection Report form). Information compiled from physical observations and field monitoring should be used to help identify potential sources. These observations are very important since they are the simplest method of identifying grossly contaminated dry weather flows. If physical observations alone are sufficient to warrant further investigation, then field testing is not required.

If a dry weather flow exists, and after making all physical observations (unless physical observations are enough to warrant further investigation), the Tier Municipality shall field test for surfactants (detergents). If these flows contain surfactants in excess of the detection limit, Tier A Municipalities shall field test for ammonia (as N) and potassium to help distinguish sanitary wastewater sources from other non-stormwater flows that contain detergents. Non-stormwater discharges that are absent of surfactants shall be tested for fluoride to help distinguish potable from non-potable sources. Municipalities should refer to the Tier A Stormwater General Permit Guidance Manual for assistance and interpretation of field testing results.

All of the tests for the tracing of illicit connections may be performed in the field by employees of the Tier A Municipality or may be contracted out. Lab certification for those parameters is not required, however all person(s) responsible for calibrating, maintaining, and taking field samples shall be trained in the use of the equipment and appropriate field testing protocol.

Investigation

Any storm sewer outfall pipe found during the initial inspection or on any subsequent inspection to have a non-stormwater discharge or indications of an intermittent non-stormwater discharge requires further investigation by the Tier A Municipality to identify and locate the specific source. Non-stormwater discharges suspected of being sanitary sewage and/or significantly contaminated shall be prioritized and investigated first. Investigations of non-stormwater discharges suspected of being cooling water, washwater, or natural flows may be delayed until after all suspected sanitary sewage and/or significantly contaminated discharges have been investigated, eliminated and/or resolved.

Dry weather flows believed to be an immediate threat to human health or the environment shall be reported immediately to the Department's Action Hotline at 1-877-WARNDEP (1-877-927-6337).

Physical observations and field testing can help narrow the identification of potential sources of a non-stormwater discharge. However it is unlikely that either will pinpoint the exact source. Therefore, Tier A Municipalities will need to perform investigations "upstream" to identify illicit connections to systems with identified problem outfalls.

All non-stormwater discharges, whether continuous or intermittent must be investigated by the Tier A Municipality. All investigations must be resolved. If the source is found to be a non-stormwater discharge authorized under Part I, Section A.2.c of the permit, no further action is required. If a non-stormwater discharge is found but no source is able to be located within six (6) months of beginning the investigation, then the Tier A Municipality shall submit to the Department a Closeout Investigation form to close out the investigation. The Tier A Municipality must document that a good faith effort was made to find the source of the dry weather discharge and document each phase of the investigation. If the observed discharge is intermittent the Tier A Municipality must document, in the Illicit Connection Inspection Report form, that a minimum three (3)

separate investigations were made to observe the discharge when it is flowing. If these attempts are unsuccessful, the Tier A Municipality shall submit to the Department the Closeout Investigation form noted above. However, since this is an ongoing program, the Tier A municipality should periodically recheck these suspected intermittent discharges.

Elimination

Non-stormwater discharges traced to their source and found to be illicit connections subject to the ordinance prohibiting illicit connections shall be eliminated. At the time the illicit connection is detected the responsible party shall be cited for violation of the municipal ordinance prohibiting illicit connections and given thirty (30) days to cease the non-stormwater discharge. The responsible party may apply for a NJPDES permit for the discharge, but the discharge shall be ceased until a valid NJPDES permit has been issued by the Department. Tier A Municipalities are required to verify that the illicit discharge was eliminated by the responsible party within the specified timeframe and ensure that measures taken to eliminate the discharge are permanent and are not done in such a manner that would allow easy reconnection to the MS4.

When a responsible party fails to eliminate the discharge, Tier A Municipalities shall take the necessary steps to enforce their ordinance, including court action. In such instances the Department shall be notified by written correspondence so it is aware of any pending action and is able to provide assistance if needed.

If an illicit connection cannot be located or is found to emanate from another public entity, Tier A Municipalities must submit to the Department a written explanation detailing the results of the investigation and notify that public entity.

Attachment C

Design Standard - Storm Drain Inlets

This standard applies to storm drain inlets installed as part of new development and redevelopment projects (public or private) that disturb one acre or more. In addition, retrofitting of existing storm drain inlets to this standard is required where such inlets are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction or alterations of facilities owned or operated by the Tier A Municipality. For exemptions to this standard see "Exemptions" below.

Grates in Pavement or Other Ground Surfaces

Design engineers shall use either of the following grates whenever they use a grate in pavement or another ground surface to collect stormwater from that surface into a storm drain or surface water body under that grate:

1. The New Jersey Department of Transportation (NJDOT) bicycle safe grate, which is described in Chapter 2.4 of the NJDOT Bicycle Compatible Roadways and Bikeways Planning and Design Guidelines (April 1996).
2. A different grate, if each individual clear space in that grate has an area of no more than seven (7.0) square inches, or is no greater than 0.5 inches across the smallest dimension.

(In regard to whether the different grate must also be bicycle safe, the Residential Site Improvement Standards include requirements for bicycle-safe grates.)

Examples of grates subject to this standard include grates in grate inlets, the grate portion (non-curb-opening portion) of combination inlets, grates on storm sewer manholes, ditch grates, trench grates, and grates of spacer bars in slotted drains. Examples of ground surfaces include surfaces of roads (including bridges), driveways, parking areas, bikeways, plazas, sidewalks, lawns, fields, open channels, and stormwater basin floors.

Curb-Opening Inlets (Including Curb-Opening Inlets in Combination Inlets)

Whenever design engineers use a curb-opening inlet, the clear space in that curb opening (or each individual clear space, if the curb opening has two or more clear spaces) shall have an area of no more than seven (7.0) square inches, or be no greater than two (2.0) inches across the smallest dimension.

Exemptions

Retrofitting Exemptions

1. Repaving, repairing, reconstruction or alterations projects that began construction prior to March 3, 2004, and projects that were awarded bid prior to March 3, 2004, are exempted from the storm drain inlet design standard.
2. Existing curb-opening inlets do not need to be retrofitted to meet the design standard if each individual clear space in the curb opening has an area of no more than nine (9.0) square inches.

Hydraulic Performance Exemptions

1. New Development and Redevelopment Projects - Where the review agency determines that this standard would cause inadequate hydraulic performance that

could not practicably be overcome by using additional or larger storm drain inlets that meet these standards.

2. Retrofitting of existing storm drain inlets - Where the review agency determines that this standard would cause inadequate hydraulic performance.

Alternative Device Exemptions

1. Where flows from the water quality design storm as specified in N.J.A.C. 7:8 are conveyed through any device (e.g., end of pipe netting facility, manufactured treatment device, or a catch basin hood) that is designed, at a minimum, to prevent delivery of all solid and floatable materials that could not pass through one of the following:
 - a. A rectangular space four and five-eighths inches long and one and one-half inches wide (this option does not apply for outfall netting facilities); or
 - b. A bar screen having a bar spacing of 0.5 inches.
2. Where flows are conveyed through a trash rack that has parallel bars with one-inch (1") spacing between the bars, to the elevation of the water quality design storm as specified in N.J.A.C. 7:8.

Note - The preceding exemptions do not authorize any infringement of requirements in the Residential Site Improvement Standards for bicycle-safe grates in new residential development (N.J.A.C. 5:21-4.18(b)2 and 7.4(b)1).

Historic Places Exemption

1. Where the Department determines, pursuant to the New Jersey Register of Historic Places Rules at N.J.A.C. 7:4-7.2(c), that action to meet this standard is an undertaking that constitutes an encroachment or will damage or destroy the New Jersey Register listed historic property.

Attachment D
Required Practices for Fueling Operations, Vehicle Maintenance, and Good Housekeeping SBRs

The following BMPs must be implemented at maintenance yards including maintenance activities at ancillary operations (for example, impound yards, solid waste transfer stations, mobile fueling), where applicable, operated by Tier A Municipalities:

A. Inventory Requirements for Municipal Maintenance Yard Operations (including Ancillary Operations)

1. Tier A Municipalities shall include for municipal maintenance yard operations an inventory that includes the following:
 - a. A list to be made part of the SPPP of general categories of all materials or machinery located at the municipal maintenance yard, which could be a source of pollutants in a stormwater discharge. The materials in question include, but are not limited to: raw materials; intermediate products; final products; waste materials; by-products; machinery and fuels; and lubricants, solvents, and detergents that are related to the municipal maintenance yard operations or ancillary operations. Materials or machinery that are not exposed to stormwater or that are not located at the municipal maintenance yard or related to its operations do not need to be included.

B. Fueling

1. No topping off vehicles, mobile fuel tanks, and storage tanks. Drip pans must be used under all hose and pipe connections and other leak-prone areas during bulk transfer of fuels.
2. Block storm sewer inlets, or contain tank trucks used for bulk transfer, with temporary berms or temporary absorbent booms during the transfer process. If temporary berms are being used instead of blocking the storm sewer inlets, all hose connection points associated with the transfer of fuel must be within the temporary berms during the loading/unloading of bulk fuels. A trained employee must always be present to supervise during bulk fuel transfer.
3. Clearly post, in a prominent area of the facility, instructions for safe operation of fueling equipment, and appropriate contact information for the person(s) responsible for spill response.
4. Any equipment, tanks, pumps, piping and fuel dispensing equipment found to be leaking or in disrepair must immediately be repaired or replaced.

C. Vehicle Maintenance

1. Perform all vehicle and equipment maintenance at an indoor location with a paved floor whenever possible. For projects that must be performed outdoors that last more than one day, portable tents or covers must be placed over the equipment being serviced when not being worked on, and drip pans must be used.

D. General Good Housekeeping

1. Properly mark or label all containers. Labels must be kept clean and visible. All containers must be kept in good condition and tightly closed when not in use. When practical, containers must be stored indoors. If indoor storage is not practical, containers may be stored outside as long as they are covered and placed on spill platforms. An area that is graded and/or bermed that prevents run-through of stormwater may be used in place of spill platforms. Outdoor storage locations must be regularly maintained.
2. Conduct cleanups of any spills or liquids or dry materials immediately after discovery. Clean all maintenance areas with dry cleaning methods only. Spills shall be cleaned up with a dry, absorbent material (i.e., kitty litter, sawdust, etc.) and the rest of the area is to be swept. Collected waste is to be disposed of properly. Clean-up materials, spill kits and drip pans must be kept near any liquid transfer areas, protected from rainfall.

E. Good Housekeeping Practices for Salt and De-icing Material Handling

1. The SPPP for De-icing Material Storage shall include the following required practices to ensure that Municipal Maintenance Yard Operations prevent or minimize the exposure of salt and de-icing materials to stormwater runoff from storage, loading and unloading areas and activities:
 - a. Prevent and/or minimize the spillage of salt and de-icing materials during loading and unloading activities.
 - b. At the completion of loading and unloading activities, spilled salt and de-icing materials shall be removed using dry cleaning methods and either reused or properly discarded.
 - c. Sweeping by hand or mechanical means of storage and loading/unloading areas shall be done on a regular basis. More frequent sweeping is required following loading/unloading activities. Sweeping shall also be conducted immediately following, as practicable, loading/unloading activities.
 - d. Tracking of materials from storage and loading/unloading areas shall be minimized.
 - e. Minimize the distance salt and de-icing materials are transported during loading/unloading activities.
2. Interim Seasonal Tarping - All Tier A Municipalities must tarp all de-icing materials until a permanent structure is built. Interim storage measures must include, but are not limited to the following:
 - a. Tarping materials that are not actively being used.
 - b. The storage of de-icing materials (salt and de-icing products) outside is limited to October 15th through April 30th. All salt and de-icing materials must be removed from the site prior to May 1st and may not be stored outside again until October 15th.

c. The implementing of a regular inspection, sweeping and housekeeping program to ensure that the material is maintained and stored in a proper manner.

F. Inspections

1. Inspections of all Municipal Maintenance Yard Operations shall be conducted regularly.
2. Discharge of Stormwater from Secondary Containment
 - a. The discharge pipe/outfall from a secondary containment area must have a valve and the valve must remain closed at all times except as described below. A municipality may discharge stormwater that accumulated in the secondary containment area if a visual inspection is performed to ensure that the contents of aboveground storage tank have not come in contact with the stormwater to be discharged. Visual inspections are only effective when dealing with materials that can be observed, like petroleum. If the contents of the tank are not visible in stormwater, the municipality must rely on previous tank inspections to determine with some degree of certainty that the tank has not leaked. If the municipality cannot make a determination with reasonable certainty that the stormwater in the secondary containment area is uncontaminated by the contents of the tank, then the stormwater shall be hauled for proper disposal.

Attachment E
Local Public Education Approved Activities and Point Totals

A. Tier A Municipalities shall conduct educational activities that total a minimum of 10 points annually. Each approved activity is listed below with an assigned point value.

1. **School Presentations** - Present educational classes/assemblies to local elementary, middle, and/or high school classes. (1 point per visit / maximum of 5 points per year)
2. **Website** – Maintain a stormwater related page on the municipal website and include a link to www.cleanwaternj.org. (1 point)
3. **Stormwater Display** – Present a stormwater related display and materials at any municipal event (e.g., Earth Day, town picnic) or maintain a display at the municipal building (2 points)
4. **Giveaway** – Distribute an item with a stormwater related message (e.g., refrigerator magnets, temporary tattoos, bookmarks, coloring books, and pens or pencils). Municipality must purchase a minimum number of the item equal to 10% of the municipal population. (2 points)
5. **Citizen Stormwater Advisory Committee** – Establish a subcommittee to the Environmental Commission to identify, coordinate and implement stormwater related programs. (2 points)
6. **Utilize Department Materials** - Use Department created stormwater education materials, which can be found on www.cleanwaternj.org to publish an ad in a newspaper that serves the municipality; broadcast a radio or television commercial on a local radio or municipal public service channel; produce a billboard or sign which can be displayed on a bus, bus stop shelter, or at a recreation field (outfield sign). (2 points each / maximum of 4 points per year)
7. **Poster Contest** – Organize a poster contest with a local school district. Poster themes shall have an appropriate stormwater message. Posters are to be displayed at buildings within the municipality such as at the town hall, library, or school. (2 points)
8. **Stormwater Training for Elected Municipal Officials** – Conduct a program for all elected municipal officials which educates them on the Stormwater Management Rules (N.J.A.C. 7:8), Tier A Permit and what steps the municipality has already taken to minimize stormwater pollution. (3 points)
9. **Mural** – Facilitate the planning and painting of a stormwater pollution themed mural at a local downtown/commercial area. (3 points)
10. **Mailing** – Distribute any of the Department’s educational brochures, tip cards, or a municipally produced equivalent (e.g, calendar, recycling schedule), to every resident and business in the municipality. (3 points)
11. **Partnership Agreement / Local Event** - Identify and enter into a partnership

agreement with a local group such as a watershed organization, Riverkeeper, school, youth/faith based group and/or other nonprofit to carry out a minimum of two (2) watershed stewardship/education activities (e.g., litter march, stream/beach cleanup). (3 points)

12. Ordinance Education – Distribute a letter from the mayor to every resident and business in the municipality highlighting the requirements and environmental benefits of the Pet Waste, Litter, Improper Disposal of Waste, Wildlife Feeding, Yard Waste, Illicit Connection, Refuse Container, and Private Storm Drain Inlet Retrofitting Ordinances. This letter/article must also reference a page on the municipal website (if applicable) to which residents can go to read these ordinances. (5 points)

* Posting these ordinances does not constitute the development of a website referenced above.

Attachment F
**MUNICIPALITIES AFFECTED BY THE TMDL FOR THE “NON-TIDAL
PASSAIC RIVER BASIN ADDRESSING PHOSPHORUS IMPAIRMENTS”**

Bergen County

Elmwood Park Borough
Garfield City
Midland Park Borough
Ridgewood Village

Fair Lawn Borough
Glen Rock Borough
Oakland Borough
Waldwick Borough

Franklin Lakes Borough
Mahwah Township
Ramsey Borough
Wycoff Township

Essex County

Caldwell Borough
Fairfield Township
Montclair Township
Verona Township

Cedar Grove Township
Livingston Township
North Caldwell Borough
West Caldwell Township

Essex Fells Borough
Millburn Township
Roseland Borough
West Orange Township

Morris County

Butler Borough
Denville Township
Hanover Township
Long Hill Township
Mendham Township
Morris Township
Parsippany-Troy Hills
Riverdale Borough

Boonton Town
Chatham Borough
East Hanover Township
Kinnelon Borough
Madison Borough
Montville Township
Morristown Town
Pequannock Township

Boonton Township
Chatham Township
Florham Park Borough
Lincoln Park Borough
Mendham Borough
Morris Plains Borough
Mountain Lakes Borough
Randolph Township

Passaic County

Bloomington Borough
Hawthorne Borough
Paterson City
Ringwood Borough
Wayne Township

Clifton City
Little Falls Township
Pompton Lakes Borough
Totowa Borough
West Milford Township

Haledon Borough
North Haledon Borough
Prospect Park Borough
Wanaque Borough
West Paterson Borough

Somerset County

Bernards Township
Warren Township

Bernardsville Borough

Bridgewater Township

Union County

Berkeley Heights Twp.

New Providence Borough

Summit City

Pet Waste Pollutes Our Waters

What You Can Do To Help Protect Our Water

Clean and plentiful water is important to our families, our environment, our economy and our quality of life.

Did you know that animal waste from pets can pollute our waters? When left on the ground, pet waste is washed by rain and melting snow and ice into storm drains that carry it to our rivers, lakes, the ocean and drinking water.

Animal waste contains a high concentration of nutrients as well as bacteria and disease-causing microorganisms that can cause problems.

What you can do

Pet owners or anyone who takes your pet for walks must properly dispose of the waste by picking it up, wrapping it and either placing it in the trash or flushing it unwrapped down the toilet.

Your municipality is required to adopt and enforce local pet-waste laws. At a minimum, your community must require that pet owners or their keepers **immediately** and **properly** dispose of their pet's solid waste deposited on **any public or private property not owned or possessed by that person**. People with assistance animals such as Seeing Eye dogs are exempt.

Make sure you know what your municipality requires – and follow it.

Thank you for doing your part to keep New Jersey's waters clean.

For more information, please contact the following:

New Jersey Department of Environmental Protection
Division of Water Quality
Bureau of Nonpoint Pollution Control
Municipal Stormwater Regulation Program
(609) 633-7021



Visit www.njstormwater.org or www.nonpointsource.org

Additional information is also available at U. S.
Environmental Protection Agency Web sites
www.epa.gov/npdes/stormwater or www.epa.gov/nps



Solutions to Stormwater Pollution

Easy Things You Can Do Every Day To Protect Our Water

A Guide to Healthy Habits for Cleaner Water

Pollution on streets, parking lots and lawns is washed by rain into storm drains, then directly to our drinking water supplies and the ocean and lakes our children play in. Fertilizer, oil, pesticides, detergents, pet waste, grass clippings: You name it and it ends up in our water.

Stormwater pollution is one of New Jersey's greatest threats to clean and plentiful water, and that's why we're all doing something about it.

By sharing the responsibility and making small, easy changes in our daily lives, we can keep common pollutants out of stormwater. It all adds up to cleaner water, and it saves the high cost of cleaning up once it's dirty.

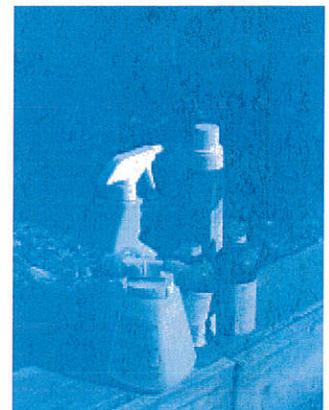
As part of New Jersey's initiative to keep our water clean and plentiful and to meet federal requirements, many municipalities and other public agencies including colleges and military bases must adopt ordinances or other rules prohibiting various activities that contribute to stormwater pollution. Breaking these rules can result in fines or other penalties.



As a resident, business, or other member of the New Jersey community, it is important to know these easy things you can do every day to protect our water.

Limit your use of fertilizers and pesticides

- Do a soil test to see if you need a fertilizer.
- Do not apply fertilizers if heavy rain is predicted.
- Look into alternatives for pesticides.
- Maintain a small lawn and keep the rest of your property or yard in a natural state with trees and other native vegetation that requires little or no fertilizer.
- If you use fertilizers and pesticides, follow the instructions on the label on how to correctly apply it.



Make sure you properly store or discard any unused portions.

Properly use and dispose of hazardous products

- Hazardous products include some household or commercial cleaning products, lawn and garden care products, motor oil, antifreeze, and paints.
- Do not pour any hazardous products down a storm drain because storm drains are usually connected to local waterbodies and the water is not treated.

- If you have hazardous products in your home or workplace, make sure you store or dispose of them properly. Read the label for guidance.
- Use natural or less toxic alternatives when possible.
- Recycle used motor oil.
- Contact your municipality, county or facility management office for the locations of hazardous-waste disposal facilities.



Keep pollution out of storm drains

- Municipalities and many other public agencies are required to mark certain storm drain inlets with messages reminding people that storm drains are connected to local waterbodies.
- Do not let sewage or other wastes flow into a stormwater system.

Clean up after your pet

- Many municipalities and public agencies must enact and enforce local pet-waste rules.
- An example is requiring pet owners or their keepers to pick up and properly dispose of pet waste dropped on public or other people's property.
- Make sure you know your town's or agency's requirements and comply with them. It's the law. And remember to:
 - Use newspaper, bags or pooper-scoopers to pick up wastes.
 - Dispose of the wrapped pet waste in the trash or unwrapped in a toilet.
 - Never discard pet waste in a storm drain.

Don't feed wildlife

- Do not feed wildlife, such as ducks and geese, in public areas.
- Many municipalities and other public agencies must enact and enforce a rule that prohibits wildlife feeding in these areas.

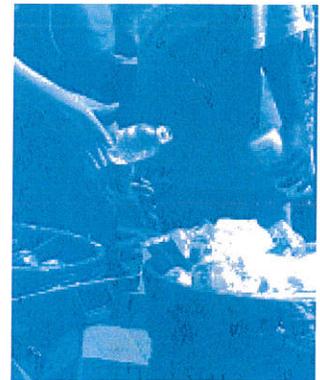


Don't litter

- Place litter in trash receptacles.
- Recycle. Recycle. Recycle.
- Participate in community cleanups.

Dispose of yard waste properly

- Keep leaves and grass out of storm drains.
- If your municipality or agency has yard waste collection rules, follow them.
- Use leaves and grass clippings as a resource for compost.
- Use a mulching mower that recycles grass clippings into the lawn.



Contact information

For more information on stormwater related topics, visit www.njstormwater.org or www.nonpointsource.org

Additional information is also available at U. S. Environmental Protection Agency Web sites www.epa.gov/npdes/stormwater or www.epa.gov/nps

New Jersey Department of Environmental Protection
 Division of Water Quality
 Bureau of Nonpoint Pollution Control
 Municipal Stormwater Regulation Program
 (609) 633-7021





Fact sheet

Home Composting

*William T. Hlubik, Middlesex County Agricultural Agent; Jonathan Forsell, Former Essex County Agricultural Agent (deceased);
Richard Weidman, Middlesex County Program Associate; and Mark Winokur, Former Program Assistant*

What is Composting?

Composting is a natural process where organic materials decompose and are recycled into a dark, crumbly, earthy smelling soil conditioner known as “compost”. Compost improves soil structure and moisture retention, and contributes to healthy plant growth by providing plant nutrients.

Why Should I Compost?

- Composting can save money!
- Reduces fertilizer and water use
- Avoids garbage collection and landfill fees
- Reduces the need for soil and plant amendments
- Composting helps the environment
- Reduces the volume of garbage going to landfills, transfer stations and incinerators
- Composting benefits your soil and plants
- Improves soil structure and texture
- Increases aeration and water holding
- Promotes soil fertility

- Stimulates healthy root development
- Aids in erosion control
- Reduces chemical inputs
- Composting is easy
- Save time bagging grass and leaves
- Quick and fun way to do part for the environment

Compost Ingredients

Do Compost:

- ✓ Vegetable food scraps
- ✓ Grass clippings
- ✓ Leaves
- ✓ Flowers
- ✓ Weeds
- ✓ Sawdust and wood ash
- ✓ Chopped twigs and branches
- ✓ Coffee grounds w/filters



Don't compost:

- × Meat scraps
- × Diseased or insect infested plants
- × Weeds with seeds
- × Dog and Cat feces
- × Food with grease or soap residues

Composting Methods

Slow Harvest: Ready in 12-18 Months

Made by adding layers of available yard waste over several months.

1. Set compost bin where it will get rain.
2. Put yard waste in bin as it is generated in your yard. The material at the bottom and in the center will compost first.

Fast Harvest: Ready in 5-15 Weeks

Made by mixing equal weights of green and brown materials at once.

1. Add green materials such as grass clippings or vegetable scraps mixed with brown materials such as leaves (no woody-type materials should be included).
2. Add water to pile until it's as wet as a wrung out sponge.
3. Turn pile with a pitch fork or compost aerator tool twice a week for faster compost production (less often in wintertime).

Types of Compost Bins

Compost can be made in open piles. However, to help keep a pile neat and maintain conditions needed for rapid decomposition, consider simple homemade or

store bought bins. See back page for demonstration sites in New Jersey.

Homemade Bins:

- Made from wood pallets
- Made from snow fences



Store Bought:

- Compost Tumbler
- Durable Plastic Bin



Troubleshooting

Here is how to solve problems should they occur:

Symptom	Problem	Solution
Pile has a rotten odor	Not enough air	Turn pile
Pile has ammonia odor	Too many greens	Add brown material like leaves/straw
Pile is dry	Not enough water; too much woody material	Turn and moisten; add fresh greens
Low pile temperature (pile is not composting)	Pile is too small	Add new materials
	Insufficient moisture	Add water
	Poor aeration	Turn pile
	Lack of nitrogen	Mix in greens like grass or food scraps
	Cold weather	Insulate pile with layer of straw or cover with tarp
Pests (rats, raccoons, insects)	Presence of meat or fatty food scraps	Remove from pile

Keys to Good Compost

Water: The microorganisms in the compost pile need water to live. Water pile only as needed, to maintain compost as moist as a wrung out sponge. Don't let your pile dry out completely.

Nutrients: The microorganisms in the pile need carbon for energy and nitrogen for protein in order to survive. A good balance can be achieved by mixing two parts of nitrogen rich green materials such as grass clippings, with one part of carbon rich brown materials such as leaves. However, carbon-rich leaves by themselves will compost.

Aeration: To speed up decomposition, turn the pile frequently using a pitch fork. This provides the microorganisms with enough oxygen to thrive so they can heat up the compost. Placing large branches at the bottom of the pile will also help add air to the pile. Minimal turning would be once per month and less frequently during the year.

Surface area: The more surface area the microorganisms have to work on, the faster materials will decompose. Consider chopping materials, particularly brush or branches which have a diameter of 1/4 inch or more. Pile size is also important. For quicker decomposition, pile should be at least 3 feet x 3 feet to hold the heat of microbial activity, but not so large (larger than 5 feet x 5 feet) that air can't reach microbes at the center of the pile.

Use for Compost

Mulch: Spread compost around flower and vegetable plantings, trees, shrubs, and on exposed slopes. This will smother weeds, keep plant roots moist, and prevent soil erosion.

Soil Conditioner: Mix 1-3 inches of compost into vegetable and flower beds before planting. This returns organic matter to the soil in a usable form.

Potting Mix: Make your own mix by using equal parts of compost and sand or soil. Make sure compost is fully decomposed and screened.

Resources

Some books to help you along...

Backyard Composting, Harmonious Technologies,
P.O. Box 1865-100 Ojai, CA 93024

How to Grow More Vegetables, John Jeavons,
Ecology Action, 5798 Ridgewood Rd. Willits, CA
09590

Let it Rot, Stu Campbell, Storey Communications,
Inc., Schoolhouse Rd., RD#1, Box 105, Pownal,
VT 05261

The Rodale Guide to Composting, R.A. Simpson,
Rodale Press, 33 E. Miner St., Emmaus, PA
18098

Worms Eat My Garbage, Mary Appelhof, Flower
Press, 10322 Shaver Rd., Kalamazoo, MI 49002

For additional information on composting or where to get compost materials, call your Rutgers Cooperative Extension county office, found in the telephone directory blue pages, under "County Government" or your county recycling office.

Compost Deconstruction Areas

These areas in New Jersey have various types of compost bins on display. Call ahead for hours and when tours or workshops are given.

Atlantic County

Atlantic County Utilities Authority Geo Garden
6700 Delilah Rd.,
Egg Harbor Township, NJ
Contact: (609) 646-6600

Burlington County

Burlington County Resource Recovery Geo Garden
Complex, Rt 543,
Border of Florence and Mansfield Township
Contact: (609) 499-5210

Mazza & Sons, Inc. Recycling Facility
3230 Shafto Rd.,
Tinton Falls, NJ
Contact: (732) 922-9292

Middlesex County
Davidson's Mill Pond Park, Riva Avenue, South
Brunswick, NJ
Contact: (732) 745-3443

Monmouth County
Deep Cut Park, Red Hill Rd.,
Middletown, NJ
Contact: (732) 842-4000

Morris County
Frelinghuysen Arboretum, 53 E. Hanover Ave.,
Morris Township, NJ
Contact: (973) 326-7600

Passaic County
Passaic County Office of Recycling
1310 Rt. 23 N,
Wayne, NJ
Contact: (973) 305-5734

Photos Courtesy of Lindsay Halladay.

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RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
NEW BRUNSWICK**

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Fact sheet

Yard Trimmings Management Strategies in New Jersey

Jonathan H. Forsell, Agricultural and Resource Management Agent, Essex County

Introduction

Most yard debris consists of leaves, grass clippings, prunings, branches, trunks of trees, and their root systems. There are various options for managing these materials. The following are some guidelines to assist decision makers and others in determining best management strategies.

Materials Management Guidelines

Leaves: In New Jersey, leaves were banned from landfills, transfer stations, and incinerators in 1988. Collected leaves are generally composted at municipal, regional, commercial, or farm sites in large windrows (elongated piles) using the Leaf Composting Manual for New Jersey Municipalities as a guide. Municipal, regional, and private facilities can use a Type 1.11 simplified New Jersey Department of Environmental Protection (NJDEP) permit, if fewer than 20,000 cubic yards of leaves are composted annually, or a more detailed Type 2.1 permit, if the volume is greater.

Farmers can accept leaves for composting with the simplified permit if the volume is less

than 20,000 cubic yards or can receive leaves to be mulched into the soil at no greater than a six-inch depth on the soil and within seven days from delivery without need of a permit. This requires that the leaves be incorporated into the soil no later than the next tillage season.

Backyard composting (household scale) is the most cost-effective method of leaf composting because of avoided collection costs, tipping fees, permits, equipment, and management costs. Refer to fact sheets FS074 and FS117. Further detailed information about composting and trimmings management can be obtained through Rutgers Cooperative Extension and the NJDEP, Bureau of Resource Recovery.

Grass Clippings: Ideally, lawns should be mowed frequently (about five-day intervals) removing only one-third of the grass blade. The clippings will biodegrade at the soil surface providing nitrogen and organic matter. Although any type mower may be used, mulching mowers or mulching attachments on traditional rotary machines can improve the results by chopping more finely. If clippings are long and clump on the lawn, the excess can be raked up and used as a nitrogen source in the backyard composting pile. Permits can be issued by the

NJDEP to include a limited volume of grass clippings in large-scale leaf composting facilities, but the rules are quite stringent to prevent odor problems, which are common, when grass is composting in an anaerobic (oxygen-deficient) environment. A one-year farm grass clippings demonstration permit is available to farmers from NJDEP to apply grass around seasonal crops under a nutrient management plan.

Prunings: Trimmings from trees, shrubs, hedges, and perennials are composted at some permitted facilities, but can also be composted in the backyard pile. A shredder-grinder is helpful to break down larger woody material to a more compostable size.

Tree Limbs: Limbs can be cut for firewood or chipped to make a mulch for landscape use. If finely ground, the product can be composted, but at a slower rate than leaves or grass clippings. Woodchips can be used as a carbon source, when composting sewage sludge.

Tree Trunks: Trunks are usually cut, split, and dried for use as firewood. Some desirable species are used to make furniture and cabinetry, and others are ground for mulch or pulp.

Tree Root Systems: Excavated tree roots are generally ground into mulch material. Massive root systems and trunks that are not made into firewood or mulch cannot be stockpiled at a

site and are classified as Type 13 Bulky Waste, which must be hauled away for grinding or other processing.

Summary

Because yard trimmings are recyclable through composting or other means, it is prudent for government, businesses, farmers, and other people to avoid non-recycling avenues for managing this important fraction of the solid waste stream.

References

1. **Backyard Leaf Composting**, FS074, Franklin Flower and Peter F. Strom, Dept. of Environmental Science, Cook College.
2. **Grass—Cut It and Leave It**, NJDEP Division of Solid Waste Management, Office of Recycling, in cooperation with Rutgers Cooperative Extension. 1991.
3. **Leaf Composting Manual for New Jersey Municipalities**, Peter F. Strom and Melvin Finstein, Dept. of Environmental Science, Cook College and NJDEP. 1989.
4. **Using Leaf Compost**, FS117, Roy Flannery and Franklin Flower.



Fact sheet

Using Leaf Compost

*Roy L. Flannery, Specialist in Soils, Emeritus and
Franklin Flower, Specialist in Environmental Science, Emeritus*

Composting involves primarily the microbial decomposition of organic matter. Compost - the end product - is a dark, friable, partially decomposed substance similar to natural organic matter found in the soil. The organic matter content of soils is very important. It influences the physical condition, water-holding capacity, and temperature of the soil, and especially the soil bacterial processes which affect the availability of mineral salts to plants.

Why Compost Leaves

If newly fallen leaves are added directly to the soil without first being composted, the microbes that decompose the leaves compete with growing plants for soil nitrogen. The temporary nitrogen shortage caused by the microbes can reduce plant growth. To reduce or eliminate this competition for nitrogen, composting of the leaves is recommended prior to incorporating them into soils.

Need for Organic Matter

Most New Jersey soils need an increase of 1/2 to 1% in organic matter. Sandy soils, such as loamy sands and sands, and soils with very high clay content are improved the most by an increase in organic matter content.

Benefits of Adding Leaf Compost to Soil

- Among the benefits derived from adding leaf compost to New Jersey soils are:
- Drought damage to plants is reduced because of an increased water-holding capacity of the soils.
- Soil tilth is improved making the soils easier to cultivate.

- Very small amounts of the 16 essential elements needed for plant growth are supplied.
- Adverse effects of excessive alkalinity, acidity, or over-fertilization are reduced by the added buffering of the soil.
- The cation exchange capacity of soils is increased, enabling the soils to hold more plant nutrients for longer periods.
- Decomposition of the organic matter produces organic acids which combine with iron and aluminum ions, thereby reducing their potential toxicity to plants. This also makes more phosphorus available for plants because free iron and aluminum can tie up the phosphates.
- The added organic matter provides a food source for desirable soil micro-organisms.
- When incorporated into the soil, or used in a thin mulch 1/16- to 1/8-inch thick, compost helps seeds to germinate.

Overall, compost improves the physical, chemical, and biological properties of soils. Leaf compost, however, is not normally considered a fertilizer as it is too low in nutrient content. It serves primarily as an organic amendment and a soil conditioner. The nitrogen content of composted leaves on a dry basis is about 1/2 to 1% by weight. For other materials commonly added to backyard leaf compost piles, the nitrogen content is: blood meal 10-14%; grass clippings 2-4%; coffee grounds 1 1/2-2%; eggshells 1-2%; horse manure 1-5%; cow manure 1-1 1/2%; poultry manure 3-5%; ammonium sulfate 20 1/2%; urea 45%; bone meal 1 1/2-4%; and cotton seed meal 6-7%.

When Compost is Ready to Use

When compost is ready to use (6 to 18 months after starting) its temperature will generally have decreased to slightly above air temperature. Finished compost will usually be drier than leaves during composting. The material also will be crumbly in texture. Before using compost, "screening" may be necessary to remove the larger partially decomposed materials. These materials will sometimes be present in composting piles because not all items decompose at the same rate. The undecomposed organic matter clumps may be broken up and added to another active compost pile for additional decomposition.

Adding Leaf Compost to the Soil

A good rate of organic matter to work into the top 6 1/2 to 7 inches of most New Jersey cultivated soils is 0.5 to 1.0% organic matter by weight. This is equivalent to adding 900 to 1,800 wet pounds (25 to 50 bushels) of leaf compost per 1,000 square feet of area. To accomplish this, spread a 3/8- to 3/4-inch depth of leaf compost uniformly over the soil surface and mix into the top 6 to 8 inches of soil.

Little or no nitrogen will be released from compost for plant use during the season immediately following incorporation into the soil. It is generally necessary to add nitrogen to soils containing compost to prevent the compost from "robbing" the soil of nitrogen and creating deficiency problems in plants grown in the soil. Adding 1 to 1 1/2 lbs. of 10% nitrogen fertilizer to each 100 lbs. (about 3 bushels) of leaf compost is recommended.

The preceding recommendations supply only the needs of the leaf compost. Most plants require an additional 1 to 3 lbs. of actual nitrogen per 1,000 square feet for normal feeding. This nitrogen should be applied to the soil in addition to that applied in the leaf compost.

Using Leaf Compost as a Mulch

Leaf compost can also be used as an organic mulch on the surface of soil in place of peatmoss, straw, etc. Organic mulches are valuable because they:

- Reduce rainfall runoff, thereby making more water available for plant growth.

- Decrease water evaporation losses from the soil.
- Keep the soils cooler in hot weather and warmer in cold weather.
- Reduce alternate freezing and thawing of soils which can injure the fibrous roots of plants.
- Help to prevent soil erosion by wind or water.
- Keep soils friable, therefore easier to cultivate.
- Increase biological activity of earthworms and other soil organisms.
- Prevent soil spattering on leaves, flowers, or fruits such as strawberries.
- Reduce soil compaction from rain and irrigation water.
- Help to control weeds.
- Present a pleasing appearance.

Recommended thicknesses of mulch layers: 2-3 inches for deciduous shrubs and trees, vegetables, and rosebeds; 3 inches for flower beds; and 3-4 inches for shallow-rooted, acid-loving plants.

Other Uses for Leaf Compost

Leaf compost may also be used in potting soil. However, no more than 25 to 30% of the potting soil should be leaf compost. Frequently leaf compost will continue to decompose. If more than 25 to 30% of the potting soil is leaf compost, there will be a significant volume reduction of the potting soil after 1 year.

Composting generally destroys most weed seeds contained in the compost material; however, not all of them will be destroyed. Some are heat resistant, and others will not be fully exposed to the high temperatures. If a completely pasteurized leaf compost is desired for potting soil, it will be necessary to heat it in an oven until the temperature of the center of the mass reaches 180°F and is maintained for 30 minutes.



Fact sheet

Minimizing Waste Disposal: Grass Clippings

Peter F. Strom, Ph.D., Associate Professor of Environmental Science; James A. Murphy, Ph.D., Specialist in Turfgrass Management; and Henry W. Indyk, Ph.D., Specialist Emeritus in Turfgrass Management

Since refuse disposal costs have dramatically increased, and some landfills no longer accept grass clippings, many individuals and governmental agencies are seeking alternatives for disposal of clippings. During the maximum grass growing period, the municipal refuse load in some New Jersey suburban communities may contain nearly one-third grass clippings. Collected clippings become anaerobic very quickly because of their high demand for oxygen. After becoming anaerobic they emit strongly unpleasant odors. Therefore, grass clippings (in quantity) are difficult to handle and to process.

From our own experience with the handling and disposal of grass clippings, and discussions with others such as lawn care professionals, we suggest considering the following methods to reduce landfilling:

1. **RETURN TO LAWN** — It is most desirable to leave grass clippings uncollected on the lawn so that they are recycled, contributing to soil organic matter and supplying part of the fertilizer needs of the lawn. Adopt a mowing schedule to keep clippings short enough to filter through growing grass and not remain as a mat on top of the lawn. Research and experience indicate that only 1/3 of the grass length should be removed during mowing. Never allow the lawn grass to double its height between mowings. This approach not only eliminates clipping collection and disposal problems, but also can contribute to improvement of the lawn.

Clippings are not a cause of thatch in lawns. Rather, thatch is formed primarily from a dense accumulation of grass roots and stemmy material. Returning clippings along with proper mowing frequency will not increase disease problems.

Use caution when removing collection bags from mowers. Some machines are not designed to operate safely without a bag or other attachment in place. If you are unsure, check with your equipment supplier.

2. **GARDEN MULCH** — Grass clippings can be used as a garden mulch. To minimize any tendency to protect slugs, clippings can be dried in the sun for a day prior to being used in this way. Clippings can be spread on garden soil to check weed growth, reduce soil spattering and crusting, moderate soil temperatures, etc. As a precaution, do not use grass clippings from herbicide-treated lawns until after two grass cuttings have been made.

3. **SOIL INCORPORATION** — Clippings can serve as a source of organic matter for soil improvement when incorporated into the garden.

4. **BACKYARD COMPOSTING** — Grass clippings can be composted, particularly when incorporated into a backyard leaf composting pile. However, grass has a high nitrogen content, a much higher demand for oxygen than leaves, and a tendency to mat, thereby greatly reducing the passage of oxygen. Composting piles containing

grass clippings thus readily become anaerobic. This, in turn, can produce strong, unpleasant odors. These odors are particularly noticeable when the pile is disturbed.

Because of these problems, grass clippings should not be composted alone, but rather mixed with composting leaves. The partially decayed leaves which now (6-9 months after leaf fall) have a low demand for oxygen, will serve as a bulking agent permitting more oxygen to reach the grass. Grass, which is high in nitrogen, will provide a more rapid decomposition of the remaining leaves as long as it remains under aerobic conditions. Grass clippings will also contribute to a better end product (higher nitrogen content) than that obtained from composting leaves alone. One must be aware, however, that an excess of damp grass in the pile will soon become anaerobic, produce very unpleasant odors, and reduce the rate of decomposition. The objective is to keep the material **aerobic**. Also, to ensure that excess nitrogen is not given off as ammonia, do not add more than 1 part fresh grass clippings to 3 parts partially composted leaves.

The resulting compost can be used as a soil amendment, as a mulch for gardens, flower or shrub beds, or as a potting medium.

5. MUNICIPAL COMPOSTING — Some grass clippings can be incorporated into a municipal leaf composting operation. However, problems that may be experienced with backyard grass composting could be greatly magnified at a municipal facility. Even grass stored for one day or less in plastic bags or the back of a lawn maintenance pick-up truck may emit very unpleasant odors when being unloaded at the site. For this

reason, grass clippings are banned at many leaf composting facilities, unless they are very isolated. Research is continuing in this area, but other problems include the high cost of collection and an inadequate supply of leaves for the amount of clippings.

Partially composted leaves should be mixed with the grass in a 3:1 ratio, or more. Because the leaves have already decomposed by the time the grass comes to the site, however, this means the ratio actually collected must be at least 6:1. For most towns this would be possible only if most of the grass clippings are handled directly by residents on their own property.

6. CLIPPING REDUCTION — Fertilizing and watering above the requirements of the grasses may be more detrimental than beneficial to the lawn. One of the effects is increased production of clippings. (Another is potential ground or surface water pollution.) Judicious and proper use of fertilizer and water can provide an attractive lawn with a reduction in the costs, effort, susceptibility to disease, and amount of clippings produced. A fertilization program should emphasize fertilizing the lawn in the fall season rather than in the spring. This can be effective not only in reducing the amount of clippings produced, but also in contributing to a better lawn.

Two related fact sheets: "Backyard Leaf Composting" (FS074) and "Using Leaf Compost" (FS117), and assistance with procedures covered above, may be obtained from the Rutgers Cooperative Extension office in your county. The telephone number appears under County Government in your local phone directory.





Fact sheet

Backyard Leaf Composting

Franklin Flower, Extension Specialist Emeritus in Environmental Science

Peter Strom, Assistant Professor in Environmental Science

Many New Jersey homeowners have an excessive quantity of leaves in the fall. One alternative for dealing with leaves is backyard composting. This process involves primarily the microbial decomposition of organic matter. Compost - the end result - is a dark, friable, partially decomposed substance similar to natural organic matter found in the soil.

The Composting Process

Composting speeds natural decomposition under semi-controlled conditions. Raw organic materials can be converted into compost by microorganisms. As microorganisms decompose organic matter, temperatures within the pile increase, sometimes approaching 150 degrees F. at the center. These inside-pile temperatures speed the process, and kill many weed and disease organisms.

Leaves may be composted by piling them in a heap. Locate the pile where drainage is adequate and there is no standing water. The composting pile should be damp enough that when a sample taken from the interior is squeezed by hand a few drops of water will appear. A shaded area will reduce moisture evaporation from the surface, but tree roots may grow into the pile. If the surface of the pile becomes excessively dry, it will not compost, and those leaves may blow away.

The leaf pile should be at least 4 feet in diameter and 3 feet in height. If it is too small, it is difficult to maintain adequate temperatures for rapid decomposition. The maximum size should be about 5 feet in height and 10 feet in diameter. If the pile is too large, the interior will not obtain the oxygen needed for adequate, odor-free decomposition. If more material is available, lengthen the pile into a rectangular shape while keeping it 10 feet wide and 5 feet high. If there is sufficient space and material, two or three piles will provide greater flexibility. One pile can contain compost for immediate use; the second is actively composting; and the

third receives newly fallen leaves. If there is space for only one pile, new material may be added gradually to the top while removing the decomposed product from the bottom.

Containing the Pile

Composting may be done in a loose pile. However, for the most efficient use of space, it can be contained in a bin or other enclosure. The sides of this bin should be loose enough to permit air movement. One side should be open, or easily opened, for turning the pile and for removing the finished compost.

Woven wire or wooden slat fencing, or cement blocks on their sides have been used successfully. Wood gradually decomposes, and wire fencing may rust, so these materials will need periodic replacement. Wooden stakes driven into the ground may attract termites, so lumber treated with wood preservative or metal snow-fence posts may be better.

Constructing the Pile

Many instruction sheets advocate constructing the pile in layers that may include grass clippings, fertilizer, limestone, manure, soil, and leaves. However, we have found this practice to be unnecessary. The pile can be constructed of leaves only. A small amount of grass clippings may be added to the leaves as the pile is being constructed. However, because of its high demand for oxygen, too much grass tends to cause an anaerobic (without oxygen) condition. This greatly reduces the composting rate, and can produce unpleasant odors. Fresh vegetable peelings may be included, but do not add meat or grease because they may cause odors or attract pests.

Unless leaves are collected in a very wet condition, add water while placing them in the pile. Without moisture, the microorganisms will not function. Moist-en to the point



where it is possible to squeeze droplets of water from a hand-held mass of leaves.

Dead leaves lack adequate nitrogen for rapid decomposition. Therefore, a high-nitrogen fertilizer added to the pile may speed up decomposition. However, since leaves fall only for about 2 months a year, there are 10 months for decomposition before space is needed for the next batch. So, while it is generally unnecessary to add fertilizer, for more rapid decomposition and a product with a higher nutritive content, 5 ounces (about 1/2 cup) of 10% nitrogen fertilizer per 20-gallon can of hand-compacted leaves could be added. Fresh manure could be substituted, but it may cause odor problems.

Ordinarily it is unnecessary to add ground limestone because the pile seldom becomes too acidic. If fertilizer has been added, an equivalent quantity of limestone will counteract any acidity. Little or no limestone should be added if the compost is to be used on acid-loving plants.

Some guides on leaf composting recommend adding layers of soil periodically to the piles to supply the microorganisms needed for decomposition. We have not found this practice to be necessary, because leaves, themselves, contain a multitude of microorganisms. Available commercial activators or starters definitely are not needed.

Avoid packing the materials too tightly. Too much compaction will limit movement of air through the pile. Shredding the leaves generally speeds up composting.

To reduce weed germination, weeds in flower or with seeds should not be composted. Also, it is best to avoid composting diseased plants, or herbicide-treated lawn clippings until after at least three mowings.

Care of the Pile

The composting pile must be kept moist, but not soggy, for proper decomposition. Inadequate moisture reduces microbial activity, while excessive water may cause anaerobic conditions. A thin outer layer of dry leaves is unavoidable.

The pile should be periodically turned or mixed. The main objectives of turning are to shift materials from the outer parts of the pile closer to the center for better decomposition, and to incorporate oxygen. During warm weather, turn the pile once a month. In cool weather frequent turning is not recommended because it allows too much heat to escape. Piles should be turned immediately if ammonia or other offensive odors are detected. If space is available, turning may be accomplished by shifting the entire pile to an adjacent area or bin.

Within a few weeks after starting, the pile should be hot in the center. Heating generally indicates that the pile is decomposing properly. Failure to heat may be caused by too little or too much water, improper aeration, packing too tightly, or a pile that is too small. As leaves decompose, they should shrink to less than one-half of their original volume. During dry weather it may be necessary to add more water. The moisture content of the interior of the pile should be observed while turning.

Using Leaf Compost

Finished compost should be dark and crumbly with much of the original appearance no longer visible. It should have an earthy odor. Normally, compost will be ready in 4-9 months.

The major horticultural use for leaf compost is to improve the organic content of soil. Most New Jersey soils need an increase of 1/2 to 1% in organic content, particularly to improve moisture-holding capacity and tilth. Leaf compost is not normally a fertilizer, because it is too low in nutrients. Compost serves primarily as an organic amendment and as a soil conditioner. Soil mulch is another valuable use for leaf compost.

Based in part on Experiment Station Research Project No. 07526.

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Revised: December 1991

**RUTGERS COOPERATIVE EXTENSION
N.J. AGRICULTURAL EXPERIMENT STATION
RUTGERS, THE STATE UNIVERSITY OF NEW JERSEY
NEW BRUNSWICK**

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Storm Drain Labeling Guidelines for New Jersey

Prepared by
New Jersey Department of Environmental Protection
Division of Watershed Management
PO Box 418
Trenton, NJ 08625
609-984-0058

March 2004

Storm Drain Labeling Guidelines for New Jersey

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Acknowledgements

This guide is compilation of several guides and other materials that are already in existence. Many thanks to the following organizations:

*Partnership for the Delaware Estuary
Whippany River Watershed Partnership
United States Environmental Protection Agency*

Storm Drain Labeling Guidelines for New Jersey

Why Label Storm Drains?

Storm drain labeling is a great way to make people in your community more aware of nonpoint source pollution and polluted runoff. Nonpoint Source Pollution, or people pollution, is a contamination of our ground water, waterways, and ocean that results from everyday activities such as fertilizing the lawn, walking pets, changing motor oil and littering. With each rainfall, pollutants generated by these activities are washed into storm drains that flow into our waterways and ocean. Polluted runoff is stormwater contaminated by nonpoint source pollution. It harms local waterways, which we rely on for recreation and drinking water.

Residents may not be aware that most storm drains empty directly into local waterways, without treatment. Some individuals may view storm drains as trash receptacles for trash, used motor oil, leftover paint, pet waste or other pollutants. Storm drain labeling serves as an educational tool to remind people about the connection between storm drains and local waterbodies.

By labeling storm drains we can make everyone more aware of the nonpoint source pollution and polluted runoff. This is one step in educating people so that they can change their attitudes and behaviors that contribute to the problem.

Storm drain inlet labeling is also a requirement of New Jersey's new municipal stormwater permitting program. All Tier A municipalities are required to establish a storm drain inlet labeling program and label all storm drain inlets that are along municipal streets with sidewalks, and all storm drains within plazas, parking areas, or maintenance yards operated by the municipality. This program establishes a schedule for labeling, develops a long term maintenance plan and when possible coordinates the efforts with watershed groups and volunteer organizations. On an annual basis, these Tier A municipalities must identify the number of storm drains labeled. For more information on this program, visit www.njstormwater.org or call 609-633-7021.

A key factor in the success of a storm drain labeling program is visibility. Publicity in the local media about the event and volunteer participation in the event greatly increases the value of the labeling program as an educational tool. Municipalities are not required to use volunteers or seek media attention, but these activities do greatly improve the overall value of the program. Municipalities may opt to label the storm drains themselves or organize the storm drain labeling activities of local volunteers.

Types of Labeling

There are two types of storm drain labeling that can be done, stenciling with paint or gluing storm drain markers. Stenciling involves using a stencil and paint to label the drain. This type of marking has been used since early 1990s. The paint generally lasts up to 2 years, depending on weather and traffic conditions. Marking involves gluing a purchased marker to the storm drain. This method may last up to 10 years.

In determining which type of labeling to use, consider the cost of materials and how long they will last. Stenciling costs less initially and lasts a shorter time than markers which costs more initially but last longer. Another consideration is the educational value of the actual labeling process for the participants and residents. Since stenciling is done more frequently, it provides a more frequent reminder about polluted runoff.

How to Label Storm Drains

Below we have outlined the various tasks necessary to conduct a successful labeling event. At each event there are unique circumstances that come up and must be addressed by the organizers. A coordinator should be designated to oversee the event.

Preparation before the Event

1. Form an organizing committee and designate tasks.
2. Determine whether or not you will use stencils or markers. Determine what your stencils or markers will say and whether or not you want to include a graphic such as a fish, turtle, heron or crab. Some suggested messages are: "NO DUMPING – DRAINS TO RIVER," "ONLY RAIN DOWN THE STORM DRAIN," and "DUMP NO WASTE – DRAINS LOCAL WATERWAY." These messages can be customized to include the names of local waterbodies. In addition, you may wish to print the message in other languages depending on the community. Spanish is included as a standard on some markers.
3. Determine whether you will be purchasing materials or looking for donations. Include time to manufacture the markers or stencils in your timeline.
4. Identify your targeted area for labeling. Survey the area to locate the storm drains and determine how many there are. This information will determine how many labels you will need to buy and how many people will be involved in the event.
5. Select a date and a rain date for the event. Select the time and meeting location for the event.
 - a. Find out if there are any other events planned for that time period that might conflict or compliment your labeling event. A litter clean-up by the local environmental commission or flower planting by the garden club would compliment your labeling.

- b. The pavement or storm drain structure must be over 50 degrees for marking so that the adhesives will work properly. The surface must be dry for either stencils or markers.
6. Obtain written permission from your county or municipality to conduct the labeling. Call your county or municipality to find out the appropriate person or department to obtain permission from, usually the public works, highway or sewage authority. Ask them for a map of storm drains that you have permission to label.
7. In order to involve more volunteers, call various groups in your school and neighborhood to find out if they would be interested in participating. Consider involving your local AmeriCorps New Jersey Watershed Ambassador (See Resources Available at NJDEP section).
8. Prepare a promotional flyer to distribute to potential volunteers. You may want to invite friends, family, school clubs, youth groups, community organizations and neighbors. It may be beneficial to call these groups and/or make a presentation at one of their meetings.
9. Request support from local businesses to provide refreshments either before or after the event. Local businesses may also wish to contribute stenciling supplies (garbage bags, paint, brushes, gloves, etc.).
10. Invite community leaders including elected officials to participate in the event.
11. Acquire or prepare an informational flier to hand out during the event. Many materials are available for no or low cost from government agencies such as the NJ Department of Environmental Protection, local environmental groups or watershed associations (See Resource Section at the back of this booklet).
12. Prepare a press alert at least two weeks prior to the event and send it to the local media. Follow-up by calling the reporters and editors before the event.
13. Survey the area before the event to familiarize yourself with it. Note any safety concerns.

Week before the event

14. Make sure all materials are on hand. Prepare packets of supplies and information for each of your teams. Include a map of their area to label. Prepare sign-in sheets, name tags, and copies.
15. Make follow-up phone calls to confirm volunteers. Advise them of who to call in case of inclement weather. Make sure they know the time and location for the event.

16. Confirm refreshments if you are providing them.
17. Make follow up phone calls to the news media and local officials.

Day of the Event

1. Plan to arrive early to allow time to set-up before volunteers arrive.
2. Register volunteers. Allow about 30 minutes for registration and refreshments.
3. Give an overview of the day and why their work is important.
4. Divide volunteers into teams. Assign a team leader. Teams should be composed of 4 to 6 people. Make sure they have enough supplies for the area they will cover. Go over safety considerations.
5. Give volunteers a lesson on how to label the storm drain.
6. Send teams out to different areas, making sure that each team is clear on what area they are to stencil. Give them a specific time to return.
7. Take photographs of the event in order to document it and/or use them in a post-event press release.
8. When they return, collect leftover supplies. Dispose of any collected trash and recyclables properly.
9. Ask volunteers for feedback on the event. Provide refreshments if appropriate.

Follow-up after the Event

1. Send thank you letters to volunteers, businesses, supporters and any others that assisted you in the project.
2. Send a post-event press release to the local media. Include photographs of the actual event. Be sure to mention volunteer groups, sponsors and community leaders that were involved in the event.
3. Put together a summary of the event and provide it to your municipality.

Labeling Tips

All surfaces must be dry for either stenciling or marking.

Remember while working in or near the street, there is inherent risk. Be very cautious of passing cars, especially if you are working with children. Consider wearing brightly-colored safety vests, using traffic cones to protect your team and assigning a team member to serve as look-out for traffic.

Storm Drain Stenciling Tips

Supplies you will need:

- **Stencils**
- **Latex paint**
- **Foam brushes**
- **Safety Vests**
- **Educational flyers**
- **Gloves***
- **Paint stirrer**
- **Wire brushes or brooms**
- **Dustpans**
- **Newspapers or rags**
- **Trash bags**

Remember:

- A little paint goes a long way!! Using too much blurs the stencil image.
- Try to stencil in area where cars will not be driving directly on the paint. This greatly shortens the life of the paint.

How to stencil:

- Use a wire brush or broom to clear away any loose debris from the spot where the stencil will be placed. Pull weeds if necessary. Put debris in garbage bags and dispose of it properly. Keep recyclables separate and recycle any items that can be recycled.
- Designate one team member as the safety person to look out for vehicles.
- Have two team members hold down the stencil firmly on the street in front of or behind the storm drain. A third team member can gently sponge or brush paint onto the stencil. You do not need to soak the brush. The less paint you use the more control you will have in painting a clearly legible message. When using the foam brush, press straight up and down on the street to apply the paint. Wiping side to side will cause the paint to get trapped under the stencil blurring the message. All three of these team members should wear gloves.
- Once painting is completed, lift the stencil straight up to prevent smearing.
- While some team members are stenciling, others may hand out educational flyers to people passing by or to nearby businesses in the vicinity of the stenciled areas.

****Please note that many people have allergic reactions to latex gloves. Check with your team members before distributing them if you use latex gloves.***

Storm Drain Marking Tips

Supplies you will need:

- Markers
- Adhesive
- Safety Vests
- Educational flyers
- Gloves*
- Wire brushes or brooms
- Dustpans
- Newspapers or rags
- Trash bags

Remember:

- Try to place the marker in area where cars will not be driving directly on it. This can greatly shorten the life of the marker.
- Surface temperatures must be over 50 degrees for most of the adhesives used to seal properly.

How to apply a marker:

- Use a wire brush or broom to clear away any loose debris from the spot where the stencil will be placed. Pull weeds if necessary. Put debris in garbage bags and dispose of it properly. Keep recyclables separate and recycle any items that can be recycled.
- Designate one team member as the safety person to look out for vehicles.
- Have two team members apply the adhesive in a spiral pattern on the back of the marker. Be sure to wear gloves.
- Apply the marker to the cleaned area. Press down hard to insure a proper seal with the adhesive under the entire surface of the marker.
- While some team members are applying markers, others may hand out educational flyers to people passing by or to nearby businesses in the vicinity of the stenciled areas.

****Please note that many people have allergic reactions to latex gloves. Check with your team members before distributing them if you use latex gloves***

Storm drain markers are available from two sources:
This information does not constitute an endorsement by the NJDEP of either of these manufacturers.

ACP International
1010 Oakmead
Arlington, Texas 76011
817-640-0992
www.acpinternational.com

das Manufacturing
3610 Cinnamon Trace Drive
Valrico, Florida 33594
800-549-6024
www.dasmanufacturing.com

For storm drain stencils, you may purchase stencil materials locally and create your own OR purchase pre-cut or custom stencils from:

Earthwater Stencils
Rochester, Washington
(360) 956-3774
www.earthwater-stencils.com

In addition, check with watershed association and environmental groups listed in the Additional Resources Section. They may have customized labels or markers for your watershed.

NonPoint Source Pollution Tips

Information in this section can be used in preparation of an educational flyer to distribute while labeling. Check with your local watershed association or environmental group listed in the Additional Resources Section for local educational materials.

Nonpoint Source Pollution is the contamination of our ground water, waterways, and ocean that results from everyday activities such as fertilizing the lawn, walking pets, changing motor oil and littering. With each rainfall, pollutants generated by these activities are washed into storm drains that flow into our waterways and ocean. They also can soak into the ground contaminating the ground water below.

Each one of us, whether we know it or not, contributes to nonpoint source pollution through our daily activities. As a result, nonpoint source pollution is the BIGGEST threat to many of our ponds, creeks, lakes, wells, streams, rivers and bays, our ground water and the ocean.

The collective impact of nonpoint source pollution threatens aquatic and marine life, recreational water activities, the fishing industry, tourism and our precious drinking water resources. Ultimately, the cost becomes the burden of every New Jersey resident.

But there's good news - in our everyday activities we can stop nonpoint source pollution and keep our environment clean. Simple changes in YOUR daily lifestyle can make a tremendous difference in the quality of New Jersey's water resources. Here are just a few ways you can reduce nonpoint source pollution.

LITTER: Place litter, including cigarette butts and fast food containers, in trash receptacles. Never throw litter in streets or down storm drains. Recycle as much as possible.

FERTILIZERS: Fertilizers contain nitrates and phosphates that, in abundance, cause blooms of algae that can lead to fish kills. Avoid the overuse of fertilizers and do not apply them before a heavy rainfall.

PESTICIDES: Many household products made to exterminate pests also are toxic to humans, animals, aquatic organisms and plants. Use alternatives whenever possible. If you do use a pesticide, follow the label directions carefully.

HOUSEHOLD HAZARDOUS PRODUCTS: Many common household products (paint thinners, moth balls, drain and oven cleaners, to name a few) contain toxic ingredients. When improperly used or discarded, these products are a threat to public health and the environment. Do not discard with the regular household trash. Use natural and less toxic alternatives whenever possible. Contact your County Solid Waste Management Office for information regarding household hazardous waste collection in your area.

MOTOR OIL: Used motor oil contains toxic chemicals that are harmful to animals, humans and fish. Do not dump used motor oil down storm drains or on the ground. Recycle all used motor oil by taking it to a local public or private recycling center.

CAR WASHING: Wash your car only when necessary. Consider using a commercial car wash that recycles its wash water. Like fertilizers, many car detergents contain phosphate. If you wash your car at home, use a non-phosphate detergent.

PET WASTE: Animal wastes contain bacteria and viruses that can contaminate shellfish and cause the closing of bathing beaches. Pet owners should use newspaper, bags or scoopers to pick up after pets and dispose of wastes in the garbage or toilet.

SEPTIC SYSTEMS: An improperly working septic system can contaminate ground water and create public health problems. Avoid adding unnecessary grease, household hazardous products and solids to your septic system. Inspect your tank annually and pump it out every three to five years depending on its use.

BOAT DISCHARGES: Dumping boat sewage overboard introduces bacteria and viruses into the water. Boat owners should always use marine sanitation devices and pump-out facilities at marinas.

As you can see, these suggestions are simple and easy to apply to your daily lifestyle. Making your commitment to change at least one habit can result in benefits that will be shared by all of us and add to the health and beauty of New Jersey's water resources.

Resources Available at NJDEP

These resources are available through the NJDEP Division of Watershed Management and are provided for low or no cost. Please call 609-292-2113 or visit www.nj.gov/dep/watershedmgt

The New Jersey Watershed Ambassadors Program

The New Jersey Watershed Ambassadors Program is a community-oriented AmeriCorps environmental program designed to raise awareness about water issues in New Jersey. Through this program, AmeriCorps members are placed across the state to serve their local communities. Watershed Ambassadors monitor the rivers of New Jersey through River Assessment and Biological Assessment volunteer monitoring protocols. Watershed Ambassadors also make interactive presentations to community organizations and schools. They also organize and participate in stewardship projects such as storm drain stenciling, litter clean-ups and restoration projects.

Project WET (Water Education for Teachers)

Project WET is a nationally renowned program that offers teachers a better understanding about the world's water resources through hands-on, multi-disciplinary lessons. Project WET is the only program that teaches about the importance and value of water in our every day life with formal and non-formal educators while offering specialized programs about New Jersey's water resources and watersheds. NJ Project WET is a well-rounded program that focuses on water supply, water quality, water conservation, watershed management, land use planning and wetlands. Project WET provides educators with accurate insight into critical water issues while offering a large selection of creative teaching strategies.

In addition to workshops, NJ Project WET reaches another 5,000 students annually and an estimated 12,000 parents, volunteers, educators and administrators through its Water Festival Grant Program. A Water Festival is a one-day celebration of water with a focus on a school's watershed. Students participate in a series of learning stations that examine water use over time, water's role in shaping our country, what a watershed is, how water is cleaned and used again, how a molecule travels through the water cycle and much more. The festivals involve the community and attract positive media attention that reaches thousands of people across the state.

NJ Project WET offers a unique learning opportunity for high school students and teachers through its Watershed Stewards Program. This program focuses on a weekend leadership workshop for a high school team of four or five students. They are provided instruction and training in watershed topics and team-building experiences that prepare them to focus on a watershed service project that will address an environmental concern. Each Watershed Steward Team must work with three community organizations and solicit another 20 volunteers to assist with the project. Participants receive a small grant to conduct a Watershed Steward Project.

Harbor Watershed / Urban Fishing Program

The goal of the Urban Fishing Program is to educate young students living in the Newark

Bay Complex about the hazards of eating contaminated fish and help them to discover the beauty of the great natural resource. Students who participate in the program sample recreational opportunities that the bay has to offer while learning how to be responsible citizens within the estuary. The students experience four days of intense yet enjoyable instruction related to the Newark Bay Complex. Throughout the four days students are given hands-on experiences such as fishing, water monitoring, eco-cruising and community clean-ups which will endure with them over a lifetime. The program also includes a storm drain marking program that can help municipalities fulfill their stormwater permitting requirements.

Clean Water Raingers Program

This program offers educators a number of teaching materials for their students as well as background information on watersheds and nonpoint source pollution. Educators who participate in the Clean Waters Raingers Program are provided with free booklets and associated materials for their elementary school age students. The *Clean Water Raingers Coloring Book*, *How to be a Clean Water Rainger Booklet* and the *Clean Water Raingers stickers* are also popular giveaways at family oriented events and festivals. These publications are also available online on the Department's environmental education web page.

Volunteer Monitoring Program - Watershed Watch

The Division has begun to implement a Volunteer Monitoring Program over the last several years. Volunteers are being encouraged to assess their local waterways using visual surveys or benthic macroinvertebrate studies. The Watershed Watch Network, comprised of volunteer monitors from across the state, works with the Department to better coordinate and improve the data collected by volunteers.

Publications

The DWM produces a number of stormwater related publications that are available for free distribution to municipalities, watershed associations, environmental groups or other organizations. These include *What's A Watershed?* Brochure, *New Jersey's Watersheds* Poster, and *Watershed Focus* Newsletter.

Additional Resources

There are many government agencies, environmental groups, and watershed association that have resources to help you. They can help you organize an event, provide volunteers, or provide educational resources. Please contact organizations in your area.

New Jersey Department of Environmental Protection Division of Watershed Management

PO Box 418
Trenton, NJ 08625-0418
609-292-2113
www.nj.gov/dep/watershedmgt

Alliance for a Living Ocean

2007 Long Beach Boulevard
North Beach Haven, NJ 08008
609-492-0222
livingoceanalo@comcast.net
<http://www.livingocean.org/index.html>

Clean Ocean Action

18 Hartshorn Drive
PO Box 505
Highlands, NJ 07732
732-872-0111
sandyhook@cleanoceanaction.org
<http://www.cleanoceanaction.org/>

Great Swamp Watershed Association

PO Box 300
New Vernon, NJ 07976
973-966-1900
everything@greatswamp.org
<http://www.greatswamp.org>

Jacques Cousteau National Estuarine Research Reserve

Jacques Cousteau Coastal Education Center
130 Great Bay Boulevard
Tuckerton, NJ 08087
609-812-0649
weiss@imcs.rutgers.edu
<http://www.jcnerr.org/>
Lisa Weiss

Monmouth Coastal Watersheds Partnership

c/o Monmouth County Planning Board
One East Main Street
Freehold, NJ 07728
732-431-7460
Turner Shell
<http://www.visitmonmouth.com/area12/>

North Jersey Resource Conservation and Development Council

54 Old Highway 22
Clinton, NJ
908-735-0733
chall@northjerseyrcd.org
<http://www.northjerseyrcd.org/>
Christine Hall

Partnership for the Delaware Estuary

1009 Philadelphia Pike
Wilmington, DE 19809
1-800-445-4935
partners@udel.edu
www.delawareestuary.org

Passaic River Coalition

246 Madisonville Road
Basking Ridge, N.J. 07920
908-766-7550
prcwater@aol.com
<http://www.passaicriver.org/>
Ella Filippone

Pequannock River Coalition

PO Box 392
Newfoundland, NJ 07435
973-492-3212
pequannockguy@aol.com
Ross Kushner

Pohatcong Creek Watershed Association

256 Creek Road
Phillipsburg, NJ 08865
(908) 213-1550
www.pcwa.org
Dawn Areia

Pompeston Creek Watershed Association

551 New Albany Road
Moorestown, NJ 08057
(856) 235-9204
dlord@aol.com
Debbie Lord

Rockaway River Watershed Cabinet

c/o Morris 2000
2 Ridgedale Avenue
Cedar Knolls, NJ 07927
973-984-2000

South Branch Watershed Association

Lechner House, Echo Hill
Environmental Area, 51 Lilac Drive
Flemington, NJ 08822
908-782-0422
sbwa@eclipse.net
<http://www.sbwa.org>

Stony Brook Millstone Watershed Association

31 Titus Mill Road
Pennington, NJ 08534
609-737-3735
creed@thewatershed.org
www.thewatershed.org

Sussex County Municipal Utilities Authorities

34 Route 94 South
Lafayette, NJ 07848
973-579-6998
scmua@nac.net
<http://www.wallkillriver.org/>
Nathaniel Sajdak

Ten Towns Great Swamp Watershed Management Committee

c/o Morris 2000
2 Ridgedale Avenue
Cedar Knolls, NJ 07927
973-984-2000
<http://www.tentowns.org>

Watershed Management Area 3 Public Advisory Committee

holzapfeg@waynetownship.com
George Hozapfel

Watershed Management Area 4 Public Advisory Committee

Ellen Gruber

mandegruber@hotmail.com

Watershed Management Area 5 Public Advisory Committee

Bergen County Department of Health Services

327 East Ridgewood Avenue

Paramus, NJ 07652

201-634-2600

avernick@aol.com or tdecandia@co.bergen.nj.us

Anthony Vernick or Anthony DeCandia

Watershed Management Area 19 Public Advisory Committee

Burlington County Office of Land Use Planning

P. O. Box 600

Mt. Holly, NJ 08060

Gina Berg

Wreck Pond Watershed Association

809 Central Avenue

Spring Lake Heights, NJ 07762

732-449-8764

wreckpond@hotmail.com

Clean Communities Program

Sandy Huber, Executive Director
Clean Communities Council
479 West State Street
Trenton, NJ 08618
609-989-5900
info@njclean.org
<http://www.njclean.org/>

The Clean Communities Council works with the state departments of Environmental Protection and Treasury to oversee the implementation of litter abatement programs in 556 municipalities and 21 counties. The Council provides a clearinghouse for information about litter abatement, forums for the free exchange of ideas, and a voice for its constituents.

The Council also will ask towns and counties to report how Clean Communities grant money is spent—the number of cleanups held, number of volunteers who participated, the amount and type of litter and recyclables picked up, and the number and type of educational programs offered to schools and community groups. This information will be compiled in the Annual Report to the Governor and Legislature

Storm drain labeling is one of the allowable costs under this entitlement program. If you are planning a storm drain labelling event, please contact your local Clean Communities Coordinator to see if funding is available.

Useful websites

In addition, there are many valuable websites that can give you background information on nonpoint source pollution, polluted runoff, watershed and storm drain marking. They are listed below.

NJ Department of Environmental Protection

www.nj.gov/dep

features information on the Department's clean water initiatives, educational materials and regulatory programs

United States Environmental Protection Agency

www.epa.gov/owow/nps/

features basic information at the national level on nonpoint source pollution

The Watershed Institute

www.thewatershedinstitute.org

features information about watershed associations from across the state

Watershed Partnership for New Jersey

www.wpnj.org

features information on watershed educational resource in New Jersey

MSRP ANNUAL REPORT - Tier A

You have completed the Annual Report submittal process. You may print or save a copy of this submittal report for your records.

Service ID: 810183
Facility Name: WALL TWP
Reporting Period: January 1, 2017 through December 31, 2017
NJPDES Permit #: NJG0153214
Activity ID: DST170001

Contacts

Name: MATTHEW ZAHORSKY
Title: STORMWATER COORDINATOR
Contact Type: Stormwater Coordinator
Organization Name: WALL TWP
Organization Type: County/Municipal
E-Mail: MZAHORSKY@TOWNSHIPOFWALL.COM
Phone: (732) 449-8444 x2247 (Work Phone Number)
 (732) 449-8995 (Fax Number)
Contact Address: 2700 ALLAIRE RD
 Wall, New Jersey 07719

Uploaded Attachments

Attachment Name	Attachment Description	File Name
2017 Tier A	Questionnaire	2017 Tier_A_MS4_Annual_Supplemental_Questionnaire.pdf

Annual Report Details - Part A

Municipality Information

Team member responsible for completing the report:	Matthew Zahorsky, PE
Team member email address:	mzahorsky@townshipofwall.com

Stormwater Pollution Prevention Plan

1. Has the municipality revised its Stormwater Pollution Prevention Plan during the last calendar year?	No
2. Date of the last revised SPPP:	

Public Notice

1. Is the municipality complying with applicable State and local public notice requirements when providing for public participation in	Yes
--	-----

the ongoing development and implementation of the stormwater program?

Report Details - Part B

Post-Construction Stormwater Management in New Development and Redevelopment

1. Is the municipality reviewing and approving major development residential projects in accordance with the Residential Site Improvement Standards (RSIS)?	Yes
2. Did the municipality adopt a municipal stormwater management plan?	Yes
3. Most recent date of adopted municipal stormwater management plan:	01/29/2007
4. Status of this plan (if not adopted):	
5. Did the municipality adopt the municipal stormwater control ordinance provided by NJDEP without change?	Yes
6. Most recent date the municipality adopted a municipal stormwater control ordinance:	07/18/2007
7. What is the current status of the ordinance?	
8. Did the municipality submit the adopted municipal stormwater management plan to the appropriate county review agency for approval?	Yes
9. Most recent date the adopted Municipal Stormwater Management Plan was submitted to the appropriate county review agency for approval:	08/01/2007
10. If yes, did the municipality send the adopted municipal stormwater control ordinance to the appropriate county review agency for approval?	Yes
11. Most recent date the adopted Municipal Stormwater Control Ordinance was submitted to the appropriate county review agency for approval:	08/01/2007
12. Status of county review:	Approved
13. Did the municipality adopt the review agency's required amendments and resubmit to the county review agency?	
14. Is the Stormwater Control Ordinance in effect?	Yes
15. Most recent effective date of Stormwater Control Ordinance:	02/04/2010
16. Ordinance Number(s):	20-2007
17. What is the current status of the adopted plan and ordinance?	
18. Are you reviewing projects as part of your site plan and subdivision approval process to ensure that they comply with your municipality's effective municipal stormwater control ordinance(s)?	Yes
19. How many projects that were subject to either the municipal stormwater control ordinance or the stormwater provisions of RSIS did the municipality review?	7

20. Does the municipal stormwater management plan contain a mitigation plan?	Yes
21. Has the municipality granted any variances or exemptions from the design and performance standards for stormwater management measures set forth in the approved municipal stormwater management plan and stormwater control ordinance(s)?	No
22. If yes, how many variances or exemptions from the design and performance standards has the municipality granted?	
23. If granted any variances or exemptions, did you submit a written report to the county review agency describing the variance or exemption and the required mitigation?	
24. Does the municipality's plan review evaluate storm drain inlet protection for solids and floatables in accordance with Attachment C of the permit?	Yes
25. Does the municipality require plans for long-term operation and maintenance for stormwater BMPs?	Yes
26. Are you ensuring that adequate long-term operation and maintenance of stormwater BMPs is being performed on property that you do not own or operate? Please keep an inventory of stormwater BMPs indicating type, function and location in a format provided by the Department onsite and available for inspection or upon request.	Yes
27. Briefly indicate how this is being accomplished (e.g., ordinance requiring operation and maintenance by private entity; operation and maintenance by you or other governmental entity):	Township Ordinance, Board Approvals and O&M Manuals
28. Is the municipality's stormwater management plan re-examined at each re-examination of the master plan in accordance with N.J.A.C. 7:8-4?	Yes
29. Date re-examination report was last adopted:	12/20/2015

Report Details - Part C

Local Public Education Program

1. Have you developed a Local Public Education Program?	Yes
2. Have you conducted educational activities that total a minimum of 10 points (between January 1, 2017 and December 31, 2017)?	Yes
3. School Presentations (1 point per visit / maximum of 5 points per year):	0
4. Website (1 point):	1
5. Stormwater Display (2 points):	2
6. Giveaway (2 points):	0
7. Citizen Stormwater Advisory Committee (2 points):	0
8. Utilize Department Materials (2 points each / maximum of 4 points per year):	4
9. Poster Contest (2 points):	0

10. Stormwater Training for Elected Municipal Officials (3 points):	0
11. Mural (3 points):	0
12. Mailing (3 points):	0
13. Partnership Agreement / Local Event (3 points):	3
14. Ordinance Education (5 points):	0

Storm Drain Inlet Labeling

1. Have you established a storm drain inlet labeling program?	Yes
2. Indicate the percentage or number of sectors labeled to date:	100%
3. Other Amount:	
4. Is your municipality maintaining the labels (i.e. replacing and/or repainting)?	Yes

Improper Disposal of Waste

Have you adopted and are you enforcing a regulatory mechanism for:

1. Pet Waste Ordinance:	Yes
2. Date adopted:	03/08/2006
3. Litter Ordinance/State Litter Statute:	Litter Ordinance
4. Date adopted:	03/08/2006
5. Improper Disposal of Waste Ordinance:	Yes
6. Date adopted:	03/08/2006
7. Wildlife Feeding Ordinance:	Yes
8. Date adopted:	03/08/2006
9. Containerized Yard Waste Ordinance / Yard Waste Collection Program Ordinance:	Yard Waste Collection Program Ordinance
10. Date adopted:	03/08/2006
11. Illicit Connection Ordinance:	Yes
12. Date adopted:	03/08/2006
13. Refuse Container/Dumpster Ordinance:	Yes
14. Date adopted:	02/09/2001
15. Private Storm Drain Inlet Retrofitting Ordinance:	Yes
16. Date adopted:	02/09/2011
17. Status of these ordinances (if not adopted):	
18. Method(s) of enforcement (e.g., summons, warnings, additional signs, etc.):	Warning and summons if necessary
19. Are you distributing the Pet Waste Information Sheets with pet licenses?	Yes

Report Details - Part D

MS4 Outfall Pipe Mapping

1. Has the municipality completed the mapping of the MS4 outfall pipes?	Yes
2. Date completed:	04/01/2006
3. Number of outfall pipes that you operate in the municipality:	103
4. How many MS4 outfall pipes are mapped?	103

Illicit Connection Elimination Program

1. Does the municipality have an ongoing program to detect and eliminate illicit connections to municipally owned or operated outfall pipes?	Yes
2. How many outfall pipes were inspected during the past calendar year?	2
3. Number of illicit connections detected during the past calendar year:	0
4. Number of illicit connections eliminated during the past calendar year: Please attach, in a format provided by the Department, a list of all outfalls found to have an illicit connection since the inception of the program. The list must include the outfall location, receiving water body, source of illicit connection and the date the illicit connection was eliminated.	0

Street Sweeping Program

1. In the past calendar year, were all required streets swept?	Yes
2. What was the total number of miles swept?	73

List the total amount of materials collected for each month since January 1, 2017, in tons.

3. Units:	Cubic yards
4. January:	0
5. February:	0
6. March:	0
7. April:	0
8. May:	89
9. June:	20.5
10. July:	39.5

11. August:	38
12. September:	0
13. October:	0
14. November:	0
15. December:	0
16. Total (Note: 1.053 cubic yards = 1 ton):	177.59
17. Explain the reason if reporting zero (0) for a month above:	The Township only sweeps May through August

Storm Drain Inlet Retrofitting

1. Has the municipality completed repaving, repairing, reconstruction, or alterations on any road surfaces in direct contact with municipally owned or operated storm drain inlets?	Yes
2. Approximately what percentage of storm drains within the municipality currently meet the standard?	25

Stormwater Facility Maintenance

Stormwater facilities include, but are not limited to, catch basins, extended detention basins, low flow bypasses, underground detention, dry wells, manufactured treatment devices, pervious paving buffers, infiltration basins/trenches, sand filters, constructed wetlands, wet ponds, bioretention, rooftop vegetated cover, vegetative filters, and stormwater conveyance systems. Stormwater facility inventories that indicate the type, function, and location of the facility must be kept onsite and available for inspection or upon request in a format provided by the Department. The format is available as SPPP Form 13 at: http://www.nj.gov/dep/dwq/pdf/Tier_A/A%20-%20pdf%206.pdf.

1. Have you developed a Stormwater Facility Maintenance Program?	Yes
--	-----

Other Stormwater Facilities

1. Were all stormwater facilities that you operate inspected?	Yes
2. Were any found to be in need of cleaning or repair in order to function properly?	Yes
3. During the past calendar year, were any stormwater facilities (excluding catch basins) cleaned?	Yes
4. Were repairs made?	N/A - no repairs needed
5. Describe repair(s) or if repairs have not yet been made, provide a schedule for the repair(s):	

Catch Basins

1. Total number of catch basins that the municipality operates:	1535
2. Total number of catch basins inspected:	1535
3. Total number of catch basins cleaned:	1535
4. Amount of materials removed from catch basins, in tons, during the past calendar year:	69.5
5. Units:	Cubic yards

Report Details - Part E

Outfall Pipe Stream Scouring Remediation

For all outfall pipes undergoing remediation through a scour remediation program, attach additional page(s) as necessary indicating the location of the outfall pipe (including the alphanumeric identifier), the repair start date, and the repair completion date.

1. Has the municipality developed a prioritized list of outfall pipes requiring outfall pipe stream scouring remediation?	Yes
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De-icing Material and Sand Storage

1. Does the municipality have a permanent structure for all de-icing material storage?	Yes
2. If sand is being stored outside, is it set back 50 feet from storm sewer inlets, ditches or other stormwater conveyance channels, and surface water bodies?	N/A - no sand stored outdoors

Fueling Operations

1. Is the municipality implementing Standard Operating Procedures for vehicle fueling and receiving of bulk fuel deliveries at maintenance yard operations?	Yes
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Vehicle Maintenance

1. Is the municipality implementing Standard Operating Procedures for vehicle maintenance and repair activities at maintenance yard operations?	Yes
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Good Housekeeping Practices

1. Is the municipality implementing Good Housekeeping Practices for all materials or machinery listed in the Inventory Requirements for	Yes
---	-----

Municipal Maintenance Yard Operations (including maintenance activities and ancillary operations)?	
--	--

Equipment and Vehicle Washing

1. Has the municipality implemented measures to properly handle the discharge of equipment and vehicle wash wastewater from municipal maintenance yard operations?	Yes
2. Please indicate which option you implemented to eliminate the unpermitted discharge:	Ceased the discharge (no longer wash onsite)
3. Date the management measure was implemented:	02/28/2009
4. What is the NJPDES permit number that authorizes the discharge of vehicle and equipment wash wastewater?	
5. Is the municipality maintaining records of vehicle and equipment washing?	No

Annual Employee Training

1. Did the municipality conduct training for employees on stormwater related topics as required under the MS4 permit (e.g., police officers trained on ordinances)?	Yes
2. List date(s) of employee training:	April 27, 2018

Report Details - Part F

Sharing of Responsibilities

Does the municipality share services with another entity to satisfy a permit requirement?	No
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Incidents of Non-compliance

Based on the answers you provided above, the Department has identified the following possible permit compliance issues. Please complete the Incidents of Non-compliance section and identify steps being taken to correct these deficiencies.

- Your municipality has not revised your Stormwater Pollution Prevention Plan to incorporate changes required by the renewal permit.
- Your municipality is not maintaining records of vehicle and equipment washing.

1. Did your Public Complex have any incidents of non-compliance?	Yes
2. Identify the steps being taken to remedy the noncompliance and to prevent such incidents from recurring. (If the text box is not large enough to complete this section, please provide your report as an attachment and upload it on the next screen. Please reference the attachment in the textbox.)	Will revise SPPP and maintain records for vehicle and equipment washing

Certification

Certifier: Matt Zahorsky
Certifier ID: MZAHORSKY
Challenge/Response Question: [REDACTED]
Challenge/Response Answer: [REDACTED]
Certification PIN: [REDACTED]
Date/Time of Certification: 04/30/2018 13:18

"I certify under penalty of law that this Annual Report and Certification and all attached documents were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate this information. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering this information, the information in this Annual Report and Certification and all attached documents is, to the best of my knowledge and belief, true, accurate and complete.

"I certify that the municipality is in compliance with its stormwater program, Stormwater Pollution Prevention Plan (SPPP) and the NJPDES Tier A Municipal Stormwater General Permit No. NJG0153214 except for any incidents of non-compliance which are identified herein. For any incidents of non-compliance, the Annual Report identifies the steps being taken to remedy the non-compliance and to prevent such incidents from recurring.

"I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for purposely, knowingly, recklessly, or negligently submitting false information."

Please note, no changes will be allowed to be made to this report upon its certification. If you need to correct or modify the report after certification, please contact your case manager at (609) 633-7021 so they may enable that function.

Matt Zahorsky 04/30/2018
General **Date**

2017 MS4 Tier A Permit Annual Report - Supplemental Questionnaire

General Information

A. Municipal Information

Municipality: Township of Wall

County: Monmouth

1. Has the municipality identified the stormwater team in the SPPP? Yes No

2. Municipal Population: 26,264

3. Municipal Area (acres/sqm.): 32 sqm

B. Sharing of Responsibilities – Permit Section D1

1. If the municipality shares services, what requirement do the shared services satisfy?

- Public Notice
- Post-Construction Stormwater Management in New Development and Redevelopment
- Local Public Education
- Improper Disposal of Waste
- Illicit Connection Elimination and MS4 Outfall Pipe Mapping
- Solids and Floatable Controls
- Maintenance Yard Operations
- Employee Training
- N/A, there are no shared services

Permit Implementation - Ordinances

A. Ordinances - Permit Sections F5 and F6

1. *Pet Waste Ordinance*

Entity responsible for enforcement: Code Enforcement

2. *Litter Ordinance/State Litter Statute*

Entity responsible for enforcement: Code Enforcement

3. *Improper Disposal of Waste Ordinance*

Entity responsible for enforcement: Code Enforcement

4. *Wildlife Feeding Ordinance*

Entity responsible for enforcement: Code Enforcement

5. *Containerized Yard Waste Ordinance/Collection Program*

Entity responsible for enforcement: Code Enforcement

6. *Illicit Connection Ordinance*

Entity responsible for enforcement: Code Enforcement/Engineering

7. *Refuse Container/Dumpster Ordinance*

Entity responsible for enforcement: Code Enforcement

8. *Private Storm Drain Inlet Retrofitting Ordinance:*

Entity responsible for enforcement: Code Enforcement

9a. How many violations of these ordinances were enforced?

Untracked

9b. Which of the above ordinances had the most violations?

Pet Waste/Yard Waste

B. Illicit Connection Elimination Program – Permit Section F6

1. During the past calendar year, has the municipality identified any pipes or discharges with unknown owners entering the MS4? Yes No

2. If yes, how many?

C. Storm Drain Inlet Retrofitting – Permit Section F7b

Existing storm drain inlets are required to be retrofitted to meet the design standard (contained in Attachment C of the permit) when such inlets are owned or operated by the Tier A Municipality and are in direct contact with repaving, repairing (excluding repair of individual potholes), reconstruction, resurfacing (including top coating or chip sealing with asphalt emulsion or a thin base of hot bitumen), or alterations of facilities owned or operated by the Tier A Municipality. For exemptions to this standard, refer to "Exemptions" in Attachment C.

1. At the completion of the above projects, did all of the storm drain inlets meet this standard? Yes No

Permit Implementation - Inventory

A. MS4 Outfall Pipe Mapping – Permit Section F6

1. Which map format is used:

Tax Map SIIA Electronic (e.g. AutoCAD, Micro Station, GIS) USGS Quadrangle Other

1a. If other, what is the format that the municipality uses?

2. Date of last revision:

3. Is the map updated annually? Yes No

4. Has the municipality investigated its MS4 for previously unmapped outfalls? Yes No

4a. How many outfalls were found?

5. What percentage of mapped outfalls in the municipality have been visually inspected during the last calendar year?
2%

6. Are the municipality's outfall pipes labelled in the field? Yes No

6a. If yes, do the labels match the alphanumeric code in the municipality's map? Yes No

7. Does the municipality's map identify outfalls that do not discharge to surface waters? Yes No

8. Does the municipality's map identify surface water body names? Yes No

9. Does the municipality's map identify streets? Yes No

10. Does the municipality's map identify blocks and lots? Yes No

11. Does the municipality's map identify MS4 conveyance systems (pipes, swales, ditches)? Yes No

12. Does the municipality's map identify other stormwater facilities? Yes No

12a. Please identify other stormwater facilities noted on the map (select as many as apply):

Bioretention Systems

Dry Wells

Grass Swales

Manufactured Treatment Devices (MTDs)

Rooftop Vegetated Cover

Vegetative Filters

Retrofitted Storm Drain Inlets

Constructed Stormwater Wetlands

Extended Detention Basins

Infiltration Basins

Pervious Paving Systems

Sand Filters

Wet Ponds

13. Does the municipality's map identify areas with scour, erosion, and/or flooding and drainage control issues?

Yes No

B. Storm Drain Inlet Labeling – Permit Section F4b

1. How many labels have been replaced or repainted during the past calendar year to ensure legibility?
None

Permit Implementation - Inventory

A. Stormwater Facility Inspection and Maintenance – Permit Section F7c

Stormwater facilities include, but are not limited to, catch basins, extended detention basins, low flow bypasses, underground detention, dry wells, manufactured treatment devices, pervious paving, riparian buffers, infiltration basins/trenches, sand filters, constructed wetlands, wet ponds, bioretention, rooftop vegetated cover, vegetative filters, and stormwater conveyance systems. Stormwater facility inventories that indicate the type, function, and location of the facility must be kept onsite and available for inspection or upon request in a format provided by the Department. The format is available as SPPP Form 13 at: http://www.nj.gov/dep/dwq/pdf/Tier_A/A%20-%20pdf%206.pdf

1. Does the municipality's stormwater maintenance program include the following:
- 1a. An inventory of facilities? Yes No
 - 1b. An inspection schedule? Yes No
 - 1c. A maintenance schedule? Yes No
 - 1d. An inspection log noting when inspections were conducted? Yes No
 - 1e. A maintenance log noting any maintenance performed on individual facilities? Yes No
2. Does the municipality inspect stormwater facilities that are not owned by the municipality? Yes No
- 2a. Does the municipality review maintenance logs for stormwater facilities that are not owned by the municipality?
 Yes No

3. During the past calendar year, how many stormwater facilities (excluding catch basins) were repaired?
None

4. During the past calendar year, how many stormwater facilities (excluding catch basins) were cleaned?
One

B. Stormwater Facility Inspection and Maintenance – Permit Section F7c

1. Does the municipality have a stormwater outfall pipe scouring detection, remediation, and maintenance program?
 Yes No
2. How many instances of scour has the municipality found during the past calendar year?
1

Permit Implementation - Inventory

A. De-icing Material and Sand Storage – Permit Section F8a

1. What type of de-icing material does the municipality use (select as many as appropriate)?

- Sodium Chloride
- Calcium Chloride
- Potassium Acetate
- Brine Solution
- Unknown
- Other (if other, please specify):

B. Equipment and Vehicle Washing – Permit Section F8b

1. Does the municipality utilize an underground storage tank for managing vehicle wash wastewater? Yes No

2. Which of the following options does the municipality use to manage vehicle wash wastewater? (select all that apply)

- Vehicle wash reclaim system
- Capture and haul system
- Discharge to sanitary sewer
- Discharge to groundwater
- Washed off site
- Do not wash vehicles

Permit Implementation – Stormwater Management – Permit Section F3

Note: This portion of the annual report should be completed by a person knowledgeable in post-construction stormwater management project review and approvals.

1. Name of person completing this section: Matthew Zahorsky
2. Title of person completing this section: Director of Engineering and Planning

A. Municipal Stormwater Management Plan (Plan)

1. Most recent date of re-examination of municipal master plan: 2015
2. Does the plan identify and address water bodies of concern (listed on Impaired Water Bodies List, TMDL, high quality water, existing erosion)? Yes No
3. Does the plan identify and address areas of inadequate drainage? Yes No
4. Does the plan include programs or BMPs and associated timeframes specifically addressing these impairments or pollutants? Yes No
5. Does the plan identify how to incorporate future development pressures on the existing stormwater management infrastructure? Yes No
6. Are mitigation projects listed in the municipality's mitigation plan? Yes No No mitigation plan

B. Stormwater Control Ordinance

1. What is the ordinance's definition of major development?
Disturbance of an acre or more. Increase of impervious surface by 0.25 acres or more.

2. Has the municipality adopted a new stormwater control ordinance during the past year? Yes No
3. If yes, did the municipality send the adopted municipal stormwater control ordinance to the appropriate county review agency for approval? Yes No

C. Review of Major Development for Stormwater Management

1. Did the municipality have any agricultural development projects that were granted exemptions under the Right to Farm Act? Yes No
2. Do any municipal ordinances promote the use of nonstructural strategies? Yes No Unknown
3. Does the municipality hold pre-application meetings to discuss incorporation of nonstructural strategies for individual projects? Yes No
4. Does the municipality allow infiltration BMPs to infiltrate during the 2, 10, or 100 year storm events for quantity control? Yes No
5. Does the municipality conduct municipal inspections of sites both during and after the construction is completed to ensure that BMPs function as designed? Yes No

D. Inventory and Maintenance

Stormwater facility inventories that indicate the type, function, and location of the facility must be kept onsite and available for inspection or upon request in a format provided by the Department. The format is available as SPPP Form 13 at: http://www.nj.gov/dep/dwq/pdf/Tier_A/A%20-%20pdf%206.pdf.

1. Did the municipality update its map and inventory to include newly approved projects constructed within the last calendar year? Yes No

2. How many infiltration BMPs were approved during the past calendar year? ⁷

3. How many subsurface infiltration basins have been constructed during the past calendar year? ²

3a. How many of these subsurface infiltration basins were inspected during construction in the past calendar year?
All

3b. Did the final inspection include the following? Mark all that apply:

- Permeability test
- Visual inspection
- Check for drain down time
- Unknown

4. Select the methods the municipality uses to ensure that stormwater facilities that are **not owned** by the municipality will be properly maintained:

- Maintained by municipality
- Inspections
- Homeowners associations
- Shared services
- Fees
- Surety bonds
- Other

4a. If other, what are the methods for ensuring stormwater facilities are maintained?

5. In the past calendar year, has the municipality reviewed and approved any major residential developments that place an individual property owner as the responsible entity for the maintenance of any stormwater management facility(ies) that receive drainage from multiple parcels? Yes No

E. Stormwater Management Training

1. Have any of the current members of the planning or zoning board taken any NJDEP provided training for board members on the Stormwater Management rules? Yes No Unknown

2. Have the municipality's inspector(s) for stormwater management taken any of the following classes:

2a. Stormwater Management and BMPs for Engineers through Rutgers University or NJDEP : Yes No Unknown

2b. Municipal Engineering Construction Inspection Program, Part 1 through Rutgers University: Yes No Unknown

2c. Municipal Engineering Construction Inspection Program, Part 2 through Rutgers University: Yes No Unknown

2d. Soils & Site Evaluation for Septic Disposal Systems & Stormwater BMPs through Rutgers University:
 Yes No Unknown

2e. Other stormwater training classes:

3. How many construction inspectors for stormwater management does the municipality have? ^{Consultants}

4. How many operation and maintenance inspectors for stormwater management does the municipality have? 2
5. How many plan reviewers for stormwater management does the municipality have? Consultants
6. How many municipal engineers/stormwater plan reviewers have taken the NJDEP Stormwater Management and BMP Manual course offered through Rutgers University or NJDEP? Unknown

Education

A. Annual Employee Training – Permit Section F9

1. Is the municipality maintaining a record of the dates on which employees have received training? Yes No
2. Type of training media on those dates: Video Mentoring Vendor Training

This Supplemental Questionnaire must be attached to your Annual Report to be considered complete. If you experience any difficulty in this process, please contact your municipal case manager at 609-633-7021.

- Once you have completed the Questionnaire, use the "Save" function to save your answers to the Questionnaire to your computer. This can be done by going to FILE > then Save or Ctrl + S.
- The completed and saved Questionnaire must then be uploaded as an attachment, in Part 7, to your Annual Report before the Annual Report is submitted to the Department.
- To access the Annual Report, open the link to "NJDEP Online Portal" at http://www.nj.gov/dep/dwq/tier_a.htm. In Part 7, you will be asked to complete information regarding the file(s) to be uploaded. Navigate to your saved Questionnaire and then hit the "Upload" button in the lower right section of Part 7. The Annual Report will indicate if the Questionnaire was successfully uploaded. Then click on the "Continue" button and proceed with finalizing your Annual Report.